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# CHINA

After Four Years of War

*Prepared under the auspices of  
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## FOREWORD

On the night of July 7, 1937, Japanese troops held maneuvers near the Marco Polo Bridge (Lukouchiao), not far from Peiping. One soldier got lost. Thereupon, the commanding officer demanded the opening of the gates of the nearby city of Wanping. The Chinese garrison refused. Firing started.

It looked just like one of the many "incidents" which had happened ever since the capture of Mukden on September 18, 1931. It followed the usual pattern—incident, demands, lengthy parleys; but unlike other "incidents" it did not end in surrender to Japanese demands. The Japanese aim was obvious. They thought that China would settle the Lukouchiao Incident by handing the whole of North China to Japan.

It turned out otherwise. While in the north the Japanese armies tried to beat the poorly equipped Chinese troops "to their knees," the battle of Shanghai started. The China Incident became a war.

For three months the Chinese divisions held the invaders at bay in the environs of the largest Far Eastern port—Shanghai. This upset the neatly calculated Japanese time-table. The Chinese withdrew from Nanking, the capital, in December, from Hsuehchow in the following May, then from Hankow and Canton in October 1938. If not in six, at least in fifteen months, foreign observers opined, Japan would win.

But this estimate, too, was wrong. Today, after four years of ruthless warfare and of devastation unparalleled in scope and ferocity, China still fights. Not only that—she has waxed stronger. Her armies are larger, better equipped than they have ever been before. Out of nothing, factories have been created to produce the wherewithals for troops and civilians. The roadless west, roused from its century-long slumber, has been opened up by highways. Railroads, spearheads of progress

in this modern age, slowly but surely penetrate what once was frontier land. Aided by science the ancient fields bear more bountiful harvests. While China fights, she builds, confident that victory will eventually be hers.

These four years have not been easy ones. The sufferings inflicted on untold millions beggar description, the means of alleviating them have been pitifully scanty. And the end is not yet. But this is the price a nation must pay for a new life. China is paying, is determined to keep on paying until she has won freedom.

In the following articles an attempt has been made to survey briefly the main fields of China's endeavor: her war effort reflected in the growth of the army and in the records of her young air force; the reform of the administrative structure aiming at teaching the people the fundamentals of democratic methods in preparation for full self-government; the construction of manufacturing plans in the formerly non-industrialized west; the application of scientific methods in the improvement of agriculture; the development of communications of all kinds, from the time-honored ways of travel to air lines; the expansion in the output of export commodities, and the growth of the Chinese Industrial Cooperatives; the work of some of the government departments in finance, education, public health, and relief; lastly, the role of the people who have unflinchingly borne the staggering burden which the war has imposed upon them.

In making this review, there is both a justified feeling of accomplishment as well as a recognition of great, unfilled needs. The attitude of the Chinese people, from Generalissimo Chiang Kai-shek down, has always been that the war must and will be carried on to a successful conclusion, regardless of what other nations may or may not do. The increasing sympathy, goodwill, and material assistance extended to China by the United States and Great Britain since the change in the international situation, beginning late in 1940, have been deeply appreciated. If in the following pages the opportunity has been taken to point here and there to China's special needs, this has been done in the hope that they will be met by practical help from friendly nations so that final victory will be realized more speedily—victory which will redound not only to the benefit of China but also to that of humanity at large.

Chungking, July 7, 1941.

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## I. PROSECUTION OF THE WAR

### 1. ARMY GAINING STRENGTH

In the archives of China's War Office at least two records deserve a place of unusual distinction. They are those of the battle of Taierchwang, northern Kiangsu, in early April, 1938, and of the Kunlunkwan campaign in southern Kwangsi at the end of 1939.

For more reasons than one, the success of the Chinese troops in both battles merits mention from two angles. The Taierchwang victory, which has since then been overshadowed by greater successes, was noteworthy because it was the first severe blow the poorly equipped Chinese Army dealt to the enemy. It proved that by good strategy, the Chinese could hurl back the invaders, as later events have shown again and again.

The Kunlunkwan battle proved that the Japanese could not hold on to any point they desired, if the Chinese brought enough pressure to bear on them. Given heavy armaments, the Chinese could drive the Japanese out of their most strongly fortified points. The Kunlunkwan or Kunlun Pass lies hidden in a series of rugged slopes, its topographical features giving no small advantage to the defenders. As a result of the two battles, the Chinese have become more confident not only of their power of defense, but also of their ability to launch a large-scale counter-offensive, preparations for which are being steadily made.

#### HOW THE BATTLES WERE FOUGHT

The defenders of Taierchwang, led by Generals Li Tsung-jen and Pai Chung-hsi, met the southward advancing enemy with a frontal attack. Their chief reliance, however, was put on flanking and guerilla tactics by which they succeeded in severing the enemy communication lines. The Japanese, who could move

only along the railway and over terrain suitable for their motorized equipment, were immobilized once their supply routes were cut. They retreated northward after suffering heavy casualties. Upon reaching Yihsien, their remnants were ambushed and practically annihilated.

At Kunlunkwan, for the first time, Chinese motorized units were brought into action against the Japanese fortifications. The attacking Chinese faced crack Japanese troops. All around the pass, the Japanese had erected elaborate defenses, including machine-gun nests and artillery emplacements which made approach to this gateway to southern Kwangsi exceedingly difficult.

Without heavy guns, the Chinese could never have come near the stronghold. But Chinese artillery bombarded the Japanese positions with accuracy and Chinese tanks led the way up to the pass over the one narrow, winding motor road.

The Chinese drive began on December 17, 1939. Two days later Kaofengau, the stronghold of the Japanese left wing, was taken. On the following day, the Chinese entered Kunlunkwan. Owing to the arrival of enemy reinforcements, the pass did not finally fall into Chinese hands until the end of the year.

During this fighting, two-thirds of the Japanese Fifth Division were killed, including one brigade and one regiment commander. The 11th, 21st, and 43rd regiments as well as the Formosa brigade were almost annihilated. Thus the crack units formerly under the command of Lieutenant-General Itagaki were defeated for the second time since the Taierchwang battle. The Chinese booty included 102 war prisoners, 15 field guns, over 130 heavy and light machine guns, about 2,000 rifles, and quantities of other war supplies. Close to the battlefield considerable war material and documents were found.

Although little publicity was given to the victory, it was welcomed in Chinese military circles as a proof of the striking power of the Chinese troops.

#### STALEMATE UNBROKEN

Apart from the loss of Ichang, west of Hankow, in June, 1940, which was offset by the Chinese recovery of Nanning and other Kwangsi cities in October and November, few changes on the fronts occurred since Kunlunkwan days. The Japanese launched many campaigns but made no progress.

In the first stage of the war, the Japanese army made an average daily advance of four kilometers. At the time of the battle of Hankow in the summer and autumn of 1938, it gained

100 meters a day. Since then, the enemy's speed has not only been further reduced, but in several war areas Japanese forces have been compelled to withdraw.

The most striking development during the four years of war has been the steady improvement of the Chinese Army. It has learned a great deal about modern tactics and organization. The soldiers have become more seasoned and fight better. Thanks to the development of the armament industry in the interior, the troops are better equipped today than ever before and they have more supplies, military and otherwise.

As regards strategy, the Chinese troops have already won a victory by frustrating the enemy's expectation of a short war. Up to the end of 1940 Japanese losses exceeded 1,600,000 killed and wounded. The Japanese maintain 37 divisions in China, totalling 1,200,000 men. Despite the Soviet-Japanese neutrality pact, the Japanese troops stationed in Manchuria, between eight and nine divisions, have not been withdrawn. Up to May this year, none of these troops had been shifted to China.

#### "GIVE US GUNS AND PLANES"

The strength of the Chinese Army was revealed by General Ho Ying-chin, Minister of War and Chief of the General Staff, in a speech delivered over the Chinese International Broadcasting Station on April 6, 1941. After having outlined the Chinese cause—"the preservation of justice and freedom against tyranny and oppression, and the building of an international order in which nations can work freely together and solve their mutual problems by lawful and peaceful methods,"—General Ho said:

"A country with the size and population of China, in the process of evolution into a modern state, faces many and varied difficulties in carrying on simultaneous war and reconstruction. And yet, we have over 300 divisions with 5,000,000 soldiers in the field, and 10,000,000 men in reserve or in training behind the lines. Over 800,000 guerillas are harassing enemy garrisons and enemy lines of communication, while more than 600,000 regular troops are operating behind the Japanese lines.

"We hold a fighting line from north to south of 2,800 miles and hold it so well that every attempt of the enemy to break through in recent months has failed. Take, for instance, the enemy offensives in southern Honan, western Hupeh and northern Kiangsi where the invading forces, which made three attacks, were thoroughly defeated and routed. When we have



sufficient munitions and equipment, we shall at once launch large-scale counter-attacks and deal still harder blows to the enemy.

"We need a stronger air force—both for defense and offense—more artillery, improved communications in the rear, medical supplies and much else. But, meanwhile, we are successfully immobilizing more than one million Japanese soldiers in China and causing them losses of some 2,000 men a day. Japan cannot penetrate further into Chinese territory. Nor can she become an effective partner of the Axis Powers, as long as China resists. Our people are one in their purpose to maintain unity and to liberate our nation, despite the necessity of having had at one time to apply disciplinary measures to a very small number of unruly soldiers.

"Will this war make China a militaristic nation under a dictatorship? No! China will need an army for national defense, but our main energies will be directed towards the building of industries, the improvement of land and water communications, the increase of agricultural production, the extension of education, the betterment of social and economic life for all people, the development of constitutional representative government and the advancement of democracy. When peace comes our disbanded soldiers will return to their farms and businesses or be employed in large public works. China will work for peace, within her own borders and in the world. China will make her contribution to a richer and freer international life, as a self-governing and progressive republic."

#### WAR SITUATION REVIEWED

In a separate review of the war situation in China, General Ho said that being a small country and poor in natural resources, Japan is predestined to an assault strategy. Even her years of preparation and her better developed industries have not enabled her to stand a long war. When the hostilities broke out, the Japanese militarists thought they could crush the Chinese field forces with three divisions.

The Chinese counter-strategy, as decided by Generalissimo Chiang Kai-shek long before the actual clash occurred, has its basis in China's vast territory, rich resources, large manpower and numerous inborn characteristics of the Chinese people. These factors have had the effect of making up for China's belated industrial development and deficiency in armaments.

While keeping the enemy engaged in battle, the Chinese have utilized the time gained in increasing their own strength, General Ho pointed out. The idea is gradually to scatter and break the enemy strength in China's vast countryside over a long period of time. Therefore, he explained, the longer the war continues, the weaker becomes the enemy, whereas the opposite has been true in the case of the Chinese.

The Japanese have hoped all along to destroy Chinese resistance with a relatively small force, according to General Ho. Their failure has been manifest in every phase of the war. Prior to the fall of Nanking in December, 1937, the Japanese fielded 25 divisions. Although Nanking fell into Japanese hands, the Chinese field army was still intact. This made it necessary for the Japanese to increase their divisions on the China front to 29 for the Hsuechow battle. The Japanese tactics was then to fight on the outer lines hoping to trap and annihilate the Chinese army in a large enveloping movement. Their aim was again foiled by the Chinese.

After May, 1938, the Japanese were compelled further to increase their number of divisions to 31 for the Wuhan battle which, lasting over half a year, ended with the Chinese evacuation of Hankow and Wuchang in October of the same year. Throughout this campaign, the enemy had to fight his way westward on narrow strips of land on both sides of the Yangtze river. The blows handed out by the Chinese defenders were so severe that the Japanese striking power, having reached its climax, began to decline.

#### SECOND PERIOD OF WAR

With the beginning of the second period of the war, the Chinese changed their tactics from one of defensive to offensive. During the first phase of this new period, prior to February, 1940, the Japanese had to bring in more troops, raising their strength to 37 divisions. Despite this increase, they not only failed to take Changsha in Hunan in October, 1939, Shaokwan in northern Kwangtung in December of the same year, and to hold Kunlun Pass in southern Kwangsi in January, 1940, but they suffered unprecedentedly heavy losses at the hands of the counter-attacking Chinese. These reverses had a serious effect on the morale of the Japanese troops. They caused war-weariness among the enemy.

Another phase of this new period which began after

February, 1940, is still in progress, according to General Ho. Although the Japanese accomplished something during the battle of Tsaoyang and Ichang in June, 1940, it was negligible compared with their losses in lives and arms, which were so heavy that their effect was felt in other war zones. As a result, their troops had to evacuate Nanning and other cities in southern Kwangsi in October and November last year, despite the fact that it had cost them 70,000 to 80,000 lives to take them and to remain there for about a year. This constitutes another proof of the Japanese inability to bring their strategy of a quick decisive war to its logical conclusion.

During all this time, the strength of the Japanese Army has been steadily declining, according to General Ho. In the first period of the war, four major battles were fought—Shanghai, Sinkow (Shansi), Hsuehchow and Hankow. As their strategy was to exhaust the enemy, the Chinese withdrew after inflicting considerable casualties on him. During the second period, however, a change came about. Although it was again the Japanese who took the offensive in the five major battles at Nanchang, Suihsien-Tsaoyang, Changsha, southern Kwangsi and Tsaoyang-Ichang, the Chinese launched fierce counter-attacks at the right moments. At Suihsien-Tsaoyang in May, 1939, and at Changsha in October, the same year, the Japanese attacking units were routed.

Of important engagements involving more than 100,000 men on both sides, there were 276 during the first period. The Chinese took the offensive only in seven per cent of them. During the first phase of the second period, there were 163 important engagements, in 72 of which the initiative was in Chinese hands. During the second phase of the same period, 68 important engagements were fought up to December, 1940, with the Chinese on the offensive in 39 of them. In other words, the number of Chinese attacks had risen to 45 per cent of the total engagements.

Another noteworthy phenomenon since the beginning of the second period, in the opinion of General Ho, was that, apart from the leading campaigns, there were 7,964 minor engagements and 6,151 guerilla actions. Over 80 per cent of them were started by the Chinese. This increase in initiative on the part of the Chinese constitutes the most eloquent proof of China's growth in military strength. Herein also lies the best guarantee for China's ability to emerge victorious.

## DECLINE IN JAPANESE STRIKING POWER

Another evidence of the diminishing Japanese striking power is furnished by the distance covered. The greatest advance by Japanese troops was 620 kilometers during the initial phase of the first period, and 560 and 690 kilometers during the two subsequent phases of this period. During the first phase of the second period, the furthest enemy advance was 150 kilometers, and during the second phase, up to the end of December, 1940, 200 kilometers. The Japanese evacuation from Nanning is counted as a retreat of 200 kilometers.

More revealing, still, the Japanese penetrated 622,000 square kilometers, 322,000 square kilometers and 200,000 square kilometers, respectively, in the three phases of the first period. But they penetrated 77,000 square kilometers during the first phase of the second period. In each case, the area mentioned represents the entire so-called occupied districts. In reality, the Japanese control only points and lines, scarcely more than one-tenth of the entire area. The covering of less and less territory despite the employment of more and more divisions constitutes another proof of Japanese decline in fighting power.

There are numerous causes for the Japanese loss of strength. First, owing to the extension of war fronts, their troops have become increasingly inadequate. Then, too, war-weariness has been more noticeable among Japanese civilians and armed forces as the war drags on without any prospect of an early termination. In addition, there are other factors. The Japanese casualties have exceeded 1,600,000. Conscripts have been called for the 37th time. About 83 per cent of Japan's total military-age manpower has been drafted and sent to China. This has caused dislocations in production at home.

Japan's war expenses have reached staggering proportions, far exceeding her resources. Since the outbreak of war in Europe, Japan's foreign trade has become more adverse. Inflation has sent commodity prices up, while poor harvests have brought about an acute food shortage. These economic difficulties and the shortage of daily necessities have combined to reduce Japan's fighting power. In other words, the men, materials and money on which Japan had relied for the prosecution of the war are showing signs of exhaustion. Before long, General Ho believes, Japan will be faced with utter ruin.

## CAMPAIGNS FOUGHT LAST YEAR

Among the important campaigns fought in the past year was an abortive Japanese push north of Hankow in the Yangtze valley, the third one in that region in eighteen months. Begun late in November, 1940, the drive met with an abrupt end precisely one week after the Japanese had set out northward from their bases on both sides of the Han river. Of the 100,000 enemy troops, including units called from Nanking and as far as Shanghai, which took part in the short battle, one-fifth fell in the face of fierce Chinese counter-attacks. Around Tangyang and Kingmen, west of the Han river alone, the Japanese lost 8,000 men, while 6,000 fell north of Suihsien and another 5,000 north of Chunghsiang, east of the Han river. Among the Chinese booty were twelve Japanese artillery pieces, 136 heavy and light machine guns, 343 horses, 1,000 rifles, and large quantities of ammunition and other supplies.

On two previous occasions, the Japanese had made futile attempts to occupy northern Hupeh. First in May, 1939, six months after they had entered Hankow, between four and five Japanese divisions were on the march. They got as far north as Tsaoyang. Under heavy Chinese pressure they had to retreat. The second time, in May, 1940, a bolder attempt was made when the Japanese hurled a force of 150,000 men into action. They even reached several towns in southern Honan, a province north of Hupeh. Again, they were repulsed with heavy losses.

The third time, the Japanese were not able to put up as good a show as the first two times, because they were able to muster only four to five divisions. Either it was a case of underestimating the Chinese strength or, more likely, one of difficulty in mobilizing a larger force. As predicted, the Japanese were put to rout before they had gone more than 50 kilometers from their starting points.

Suihsien, Chunghsiang and the area between Tangyang and Kingmen were the main Japanese bases. The first two places are situated east of the Han river, the others west of it. The force from Suihsien tried to storm Lishan on November 25 but was forced to turn southward to Kwaiholin. That night, heavy Japanese reinforcements came up to save the situation. The following morning, with ten airplanes and scores of tanks, the Japanese counter-attacked, trying vainly to hold Shangputien and Kwantanchen.

Another Japanese unit advanced northward from Chung-

hsiang close to the east bank of the Han river about the same time. Its two immediate objectives were Changshoutien and Changchiatsi at the western foot of the Tatung Mountain which, since the fall of Hankow in October, 1938, has been a Chinese stronghold. Severe fighting broke out on November 25 and the Japanese took a terrific beating. On November 26, under cover of an aerial bombardment, the Japanese tried to forge ahead, only to be thrown back with heavy losses. The Chinese counter-attacked and recaptured the two towns on November 28, compelling the Japanese to retreat to Chung-hsiang.

Japanese troops in the Tangyang-Kingmen area moved about the same time. In quick succession, they took four villages forming a semi-circle about 50 kilometers to the north. In the face of a spirited Chinese counter-attack, this force also had to fall back, on November 29, when the entire campaign came to a dismal end.

#### BIGGEST CHINESE VICTORY

The biggest Chinese victory in the fourth year of war was scored in southern Honan province toward the end of January and in early February this year, with at least a quarter of a million men on both sides taking part in sanguinary battles. At the outset of their campaign, the Japanese made rapid progress. In one week, their three columns had covered roughly 200 kilometers of ground. But once their forces were scattered and their supply lines extended, the Chinese hit back, cutting enemy communications at the same time. In a week they recovered all lost ground, besides inflicting 20,000 casualties on the enemy.

The Japanese started moving on January 24, three columns setting out from points north of Sinyang on the Peiping-Hankow railway in southern Honan. The left wing moved in a north-westerly direction, the central column northward along the railway and the right wing in a northeasterly direction east of the railway. Their objective was to capture the section of the Peiping-Hankow railway between Sinyang and Chengchow, which is the junction of the north-south Peiping-Hankow railway and the east-west Lunghai railway.

As in many previous engagements, the Chinese tactics were to avoid offering premature resistance but to draw the enemy forces into a terrain unfavorable to the Japanese mechanized units. There was some hard fighting between

Sinyang and Kioshan, also on the Peiping-Hankow railway, 70 crow kilometers north of Sinyang. As soon as the Japanese got to the plain, the bulk of Chinese troops moved to the outer lines, some to the west and others to the east of the railway line. Those in the direct path of the Japanese north of the railway fell back to Siping and Yencheng, 160 crow kilometers north of Sinyang.

The advancing Japanese branched out fanwise in repeated attempts to encircle the Chinese, but each time the Chinese managed to get to positions on the outer lines of the Japanese. While the Japanese were advancing rapidly northward, the Chinese units entrenched in the Tungpai mountains on the Honan-Hupeh border, west of Sinyang, constantly harassed the Japanese lines of communication and reinforcements.

On February 1, the Japanese center column and left wing joined forces at points about 160 crow kilometers northwest of Sinyang, but failed to entrap the main Chinese forces. Still hoping to catch them the combined Japanese force moved westward away from the railway line. There, they were broken up and ambushed. Suffering heavy losses, part of them retreated in a southerly direction, while about 5,000 reached Nanyang, about 170 crow kilometers northwest of Sinyang. Running short of supplies, the latter were dislodged with heavy casualties.

During the battle, thousands of armed Chinese peasants from southern Honan villages aided the defenders.

One of the main reasons for the collapse of this offensive is that the Japanese troops at first advanced so fast that supplies of food and ammunition could not keep up with them. Japanese prisoners stated they did not have any food for three days. On the south Honan plain, the Japanese mechanized and motorized units were effective. But once their supply lines were cut, and the gasoline carried along was exhausted, they fell an easy prey to the Chinese. In their retreat from Nanyang, the Japanese destroyed 300 motor trucks which had run out of gas.

#### CHUNGTAO RANGE CAMPAIGN

Popularly known as Japan's "appendix" in Shansi, the Chungtao mountain range was the scene of one of the severest battles ever fought north of the Yellow river when the Japanese on May 7 launched their fourteenth attempt to dislodge the Chinese from this stronghold. Toward the end of the month, large portions of the Chinese troops had fought their way to

the rear of the Japanese lines to the north and northwest of the range. Although the Japanese by then had paid a heavy price of 30,000 killed and wounded, the fate of the range still hung in balance.

The Japanese troops taking part in the campaign were estimated at 130,000. Heavy Japanese troop movements in early April warned the defenders of what was coming. The garrisons in the principal towns at the fringe of the mountains were reinforced, forming a semi-circle from Maotsintu on the west and to Menghsien on the east, passing through Changtien, Hsiahsien, Chianghsien, Yicheng, Tsinsui, Yangcheng and Tsiyuan. Within this hoop the range stretches from the northeast to the southwest, due north of the Yellow river.

Zero hour came at 1 p.m. on May 7, when the Japanese began to advance from four points. The Japanese right wing drove eastward from Maotsintu and the left wing westward from Tsiyuan. North and northwest of the range, the Japanese approached southward in two columns from Chianghsien and Tsinsui.

The strongest of the four columns from Chianghsien, supported by bombers, drove to the southeast for Yuanchu on the north bank of the Yellow river. When checkmated half-way by the defenders, the Japanese resorted to poison gas and eventually succeeded in reaching Yuanchu over the Chianghsien-Yuanchu highway late the following day.

With the Chungtiao range thus cut into two, the invaders concentrated their efforts on encircling the entire Chinese forces. The column which had captured Yuanchu split into two, one battling its way eastward along the Yuanchu-Tsiyuan highway to meet the left wing, and the other westward to join hands with the right wing. Hard pressed from both sides, the defenders, who had successfully held up the two Japanese wings, were compelled to retire northward. A small Chinese force, however, ferried across the river to the south bank.

To tighten the cordon around the Chinese troops east of the Chianghsien-Yuanchu highway, the column, which had set out from Yicheng, made repeated attempts to break through the main Chinese defenses but without avail. West of the highway the Japanese tried to encircle the Chinese by launching concerted attacks from Yuanchu in the east, Hsiahsien in the north, and Changtien and Maotsintu in the west and southwest.

The bulk of the Chinese forces began moving northward



on May 12. The troops east of the Chianghsien-Yuanchu highway proceeded to the northwest of Tsinsui, west of Kaoping and north of Yangcheng. Those west of the highway succeeded in reaching the Chiwang mountains bounded by Hsinchiang and Wenhsi, west of the Tungpu railway. Having come to the exterior lines, the Chinese fought back. By the end of May severe fighting was still in progress.

#### OTHER OPERATIONS

Other military operations in the past year included the landing of Japanese troops at several coastal points in Chekiang and Fukien provinces. The landings were effected simultaneously on the morning of April 19 under the cover of aerial and naval bombardments. The main points that fell into the Japanese hands were Ningpo, Taichow and Wenchow in Chekiang and Foochow and Fuching in Fukien. With the exception of Ningpo and Foochow, the Chinese recovered the coastal points in counter-attacks toward the end of the month or early in May.

The Japanese campaigns against the Tungpai mountains on the Honan-Hupeh border and the Tatung mountains in central Hupeh were once more defeated by the defenders in April and May.

One other notable success gained by the Chinese troops was reported in northern Kiangsi in March. In two weeks, in which the Japanese attempted to deal a blow to the Chinese troops concentrated in the vicinity of Shangkao, 100 crow kilometers southwest of Nanchang, the invaders suffered 20,000 casualties. The war booty seized by the Chinese included 2,304 rifles, 96 light and heavy machine-guns, 128 poison-gas containers, 144 helmets, 18 artillery pieces, 30 cases of smoke-screen containers, 192 gas-masks and 104 grenade throwers.

Employing between 50,000 to 60,000 men, the Japanese as usual set out in three columns. The right wing moved westward from Anyi, northwest of Nanchang, the central column advanced from Nanchang westward, and the left wing set out from Nanchang in a southwesterly direction. Despite the early defeat of the two wings by the Chinese, the central column continued its advance in a desperate attempt to save the situation. The troops were finally surrounded by the Chinese, suffering heavy casualties.

## 2. YOUNG AIR FORCE IN ACTION

Battling against colossal odds for the past four years, the Chinese Air Force has nevertheless proven itself an efficient fighting branch of the Chinese military machine. Under the able leadership of Generalissimo Chiang Kai-shek, who concurrently heads the National Commission of Aeronautical Affairs, the flying units have been systematically organized, their personnel rigidly trained and, above all, courage and a strong sense of duty were infused into every one in the force.

The Chinese Air Force is of recent creation, dating back only to 1932 when the Central Aviation Academy was established at Chienchiiao near Hangchow, although various training institutions had been founded and squadrons maintained by different local regimes. It was only in 1934 that the institutions and squadrons attached to the provincial armies were brought to the fold of the Central Government and placed under one command.

Numerically, the Chinese Air Force lags far behind the Japanese air force. But, what the Chinese lack in personnel and equipment is partly made up by the skill and superb morale of the officers and men which have found expression in numerous engagements with the enemy, thanks to the force's motto of "Quality First."

In four years of war the Chinese succeeded in destroying over 1,000 Japanese planes. Of them 321 were shot down by pursuits and bomber gunners, 250 bombed on airfields, 170 bagged by aircraft guns, 136 shot down by land forces, 97 destroyed by guerilla fighters, while 45 crashed behind or close to Chinese lines. This does not include planes damaged by the Chinese which likely failed to return to their bases, nor those lost in accidents behind Japanese lines. Fifty-four

Japanese airmen were taken prisoner by the Chinese, and more than 1,200 dead bodies found. It is estimated that some 3,000 Japanese airmen were killed.

### TWO STAGES OF AIR WARFARE

The aerial warfare of the present Sino-Japanese hostilities may be divided into two stages with the fall of the Wuhan cities in October, 1938, as dividing line. Each of the stages can be further divided into a number of phases. They are characterized by alternate increased and decreased activities, intensive operations followed by comparative quiescence.

The first stage can be divided into three phases. The first phase covers the period from the commencement of the Battle of Shanghai on August 13, 1937, to the fall of Nanking in December. The second, from the fall of Nanking to the Battle of Hsuechow (including the victory at Taierchwang), and the third, the Battle of Wuhan in the summer of 1938.

At the beginning of the hostilities, Japanese military leaders were under the delusion that they could wipe out the Chinese Air Force in a few weeks. Of the estimated 2,300 first-line planes, Japan sent about 500 ships to the China front, most of them concentrated at Shanghai. This was against the estimated Chinese first-line strength of 200 ships.

As soon as fighting broke out at Shanghai, the Japanese Kiseratsu and Kanoya Air Corps were sent from their bases at Formosa and Quelpart Island to attack Chinese bases at Hangchow, Nanchang, and Nanking. In these expeditions the Japanese soon found that they had greatly underestimated the strength of the Chinese. Japan's first attempt at bombing the Chienchiao field (the academy had moved away immediately after the war broke out) resulted in a stunning blow over Hangchow when eight of her 13 heavy bombers were shot down on August 14, 1937, the day following the outbreak of the Shanghai hostilities. A bombing expedition to Nanking on the next day fared no better. Of the 20 bombers that started from Formosa, ten failed to return to their base. On that day, Japanese bombers were also brought down at other places, and the total of the day's bag was over 30 machines. The two initial successes gave Chinese fighter confidence and courage.

In three weeks, Chinese Curtiss-Hawk and Boeing pursuit planes practically wiped out the Kiseratsu and Kanoya Air Corps, each consisting more than 60 heavy bombers, and a number of naval observation planes, light bombers, and pursuits.

The Chinese "Hawks Wing" alone bagged more than 60 Japanese ships in August. After this severe punishment, the Japanese switched to night raids, and their daylight bombings were carried out with strong escorts.

Meanwhile, Chinese bombing squadrons, equipped with Northrop and Douglas light bombers, attacked Japanese warships in the Yangtze Estuary and Hangchow Bay and Japanese trenches and military depots around Shanghai beginning August 14. As a fitting remembrance for the "Mukden Incident" on September 18, Chinese bombers launched a night expedition against the Japanese in Shanghai, concentrating on the Kunda Cotton Mill, which was then the Japanese headquarters and depot, inflicting a material loss of over \$7,000,000.

Chinese attacking planes, though small in number, also played an important part in strafing Japanese positions and landing parties along the Whangpoo river.

Finding it difficult to make any advance on the Shanghai front, the Japanese turned their attention to the northern theater of war, pushing from Peiping and Tientsin along the Tientsin-Pukow, Peiping-Hankow, and Peiping-Suiyuan railways. To meet requirements of Chinese ground defenders, a few squadrons were sent to Taiyuan. Aerial duels were fought over Hsinkow, Yangmingpao, and Taiyuan, while bombers attacked Japanese positions at Tatung and troop trains on the railways. Another unit was sent to Canton to defend the southern port. They sank three enemy warships, damaged a number of others, and repulsed Japanese invading planes.

This phase was characterized by vigorous offensive operations against the Japanese. All branches, scouting, bombing, pursuit, and attack, of the Chinese Air Force were active on all fronts, especially the Shanghai-Nanking-Hangchow area.

After comparative inactivity between December, 1937, and February, 1938, Chinese Air Force struck with renewed vigor in the second phase. The Japanese were then advancing on Hsuechow, in northern Kiangsu, from north and south, hoping to occupy the entire Tientsin-Pukow railway after the occupation of Nanking. With greater air base facilities as the result of occupation of Chinese airfields along the coast, the strength of the Japanese air force operating in China was considerably increased, numbering around 800 ships. But in spite of the Japanese overwhelming superiority, the Chinese were able to hold their own and occasionally to inflict losses by surprise attacks. The bombing expedition to Formosa on February 23, 1938 took the

Japanese completely unawares and destroyed 12 grounded planes, three hangars, and a number of barracks. A flight of Martin bombers made a night "pamphlet raid" on western Japan on May 20, proving to the world the weakness of Japanese air defense. Besides, Chinese bombing squadrons made a number of raids on airfields and military establishments in Nanking, Wuhu, Kwangteh, Hangchow, Changteh, Hsinhsiang, and Pengpu. Japanese warships at Tikang, Lukang, Kweichih, and Tungliu in the Yangtze and aircraft carriers in Canton waters were subjected to repeated attacks. Chinese attacking planes, light bombers and pursuits also assailed Japanese troop positions, artillery emplacements, supply columns, and communication lines in Anhwei, Honan, and Shansi. Strafing and bombing were effectively carried out by the Chinese in support of their ground forces during the Battle of Taierchwang.

Chinese pursuits were highly active in this phase. In the encounter over Nanchang in January, 1938, new Chinese pursuits proved their superiority over the Japanese by downing three. In the duel over Wuhan on February 18, the Japanese lost 12 pursuits in 12 minutes, while 11 pursuits and ten bombers were bagged on April 21, birthday of the Japanese Emperor. Another big battle fought over Wuhan on May 31 saw 13 invaders crash to the ground. Aerial duels were also fought over Canton, Kweiteh, Loyang, Changsha, Hengyang, and other points.

This phase was characterized by the intense activity of Chinese pursuit squadrons and the support given to the army by light bombers.

The third phase which followed was characterized by the activities of Chinese bombing squadrons in the defense of Wuhan. The Japanese were then advancing up the Yangtze river. Without a navy, the Chinese Air Force took up the task of delaying the Japanese naval advance. Day after day, bombers were sent to attack Japanese warships and transports on the river, sinking 33 Japanese ships and damaging 109 others. Raids on Nanking, Wuhu, and Anking were occasionally made and a number of grounded enemy planes destroyed.

A series of air battles were fought during this phase over Mamotsi, Hankow, Shaokwan, Hengyang, Kunming, and Hsinyang. When the Japanese were closing in on the Wuhan cities, Chinese planes concentrated on bombing and strafing Japanese positions. Activities in this phase exceeded those

during the Shanghai-Nanking days. Increased numerical odds taxed Chinese planes and pilots to capacity. But it was also in this phase that they proved worthy of the merits won in the first phase.

#### REORGANIZATION AND TRAINING

After the fall of Wuhan in October, 1938, the Chinese Air Force went into a lull. The winter months were spent in reorganizing the squadrons, securing new planes, and studying new tactics, in preparation for the second stage.

The first phase of the second stage of the Chinese air activities lasted from February, 1939, to September, 1940. It was characterized by the leading part played by the bombing squadrons, mostly in the form of surprise raids, and in the dogged defense of Chungking, Chengtu, Kunming, and Lanchow by the pursuit units. The outstanding achievement of the new bombers was the bombing of the Japanese air base at Hankow in October, 1939, when the invaders had concentrated about 300 of their 1,000 planes on the China front at the Hankow and Hsiaokan aerodromes to cooperate with their ground forces in the Battle of Changsha, in which the Japanese were to suffer a severe defeat in the middle of October. This concentration was destroyed by Chinese bombers in two raids on October 3 and 14. Three squadrons of Chinese planes participated in each of the attacks. As a result, the Japanese lost over 100 planes destroyed or damaged (they shipped 64 damaged crafts to Shanghai for repair), more than 200 pilots and mechanics killed or wounded, and large quantities of gasoline, bombs, and accessories destroyed. The two Chinese raids practically wiped out the 12th and 13th Air Corps of the Japanese air force, and removed the threat from the air to Chinese troops then fighting on the Changsha front.

Squadrons also made a number of raids on Yuncheng, Japanese air base in southern Shansi. No less than ten attacks were made on this field during this phase. One of them, carried out on April 4, 1940, destroyed more than 30 grounded Japanese crafts. Besides, Yoyang, Chunghsiang, and a number of other Japanese advance bases were attacked.

A feature of Chinese air operations in this period was the better cooperation between air and ground forces. Chinese planes participated in nearly every one of the major engagements on the south and central China fronts. During

the battle of Nanning in 1939, Chinese planes took part by bombing the Japanese position at Patang, Chiutang, and Kunlunkwan on December 25 and 26. They opened the way for Chinese infantry to recapture the famous pass, Kunlunkwan.

During the second battle on the Honan-Hupei border in 1940, the Chinese Air Force effectively bombed Japanese communication lines in southern Honan on April 29 and bombed and machine-gunned the retreating Japanese army at Suihsien in northern Hupei on May 19. Chinese bombers were also engaged in attacking Japanese positions and troop concentrations during the battle on the Han river. A Japanese mechanized unit was bombed near Icheng (different from Ichang) on June 2, and another concentration was attacked near Tangyang on the 7th. Japanese army units near Ichang were successively and successfully bombed on June 23-25, when a severe engagement raged between the two land forces around the Yangtze trading town, as well as on other occasions. In this phase, Japanese bases and military depots in Canton, northern Hunan, southern Hupei, along the Tatung-Puchow railway in Shansi, and other places were also effectively raided.

Another "humanitarian expedition" was launched by the Chinese Air Force against Peiping on October 3, 1940, when one of its bombers made a "pamphlet raid" over the ancient capital. Instead of bombs, Chinese airmen dropped 200,000 copies of Generalissimo Chiang Kai-shek's July 7 anniversary message to the Chinese army and people, his September 18 anniversary message to the Japanese soldiers and people, and another one to the Chinese nation as a whole, to supply correct news to the Chinese people under Japanese domination.

Chinese pursuits were engaged during the past year both in defending strategic cities and in escorting bombing squadrons. The first major victory registered by Chinese pursuits in this phase was the battle over Chengtu on November 4, 1939, when 18 of the invading 54 Japanese bombers were brought down by 27 Chinese fighters. Colonel Oda, known as the "Bombing King" of the Japanese air force, was shot down by a Chinese pursuit pilot who had just completed his training. The Chinese lost two killed.

Trying to deal a severe blow to the Chinese Air Force, the Japanese attacked Lanchow in the Northwest, on three successive days, December 25-27, 1939, with a total of 301 planes. They were repulsed by the Chinese. Nine of the invading

planes were shot down in the three battles. The Chinese lost one killed.

The end of December saw Chinese pursuits also active in the Southwest. Fighting for air supremacy in Kwangsi and to afford protection to Chinese bombers in that part of the country, Chinese pursuits bagged 12 Japanese planes over Liuchow, central Kwangsi.

#### DEFENSE OF CHUNGKING

The greatest success of Chinese pursuits in the first phase of the second stage was the defense of Chungking against Japanese air-raiders in 1940. This battle, which began at the end of April and ended in September, lasted five months. About 300 new heavy bombers, mostly Italian and American made, were concentrated at Hankow for indiscriminate attacks on Szechwan cities, especially Chungking. The Japanese objective of this large-scale bombing program was "to break the Chinese will to resist," according to their spokesmen at Hankow. However, in spite of 39 raids on Chungking and the unloading of more than 2,000 tons of bombs, the Chinese will to resist was not broken. Instead, the Chinese pursuits were able to break up and defeat Japanese air armadas, mostly over 100 strong. The invaders lost in the five months 70 planes, which were located in Szechwan, Shensi, and Hupeh. Many more were so badly damaged that it was unlikely they could return to their bases. The most spectacular of these Chinese victories were the 7-0 Liangshan victory on May 20, the 7-0 Chungking victory on June 12, the 6-1 Chungking victory on June 16, and the 5-0 Chungking victory on August 11. The valor and success of the Chinese Air Force won the admiration of the entire nation, and a special tribute was paid by Generalissimo Chiang Kai-shek on June 17 for Chinese airmen's meritorious service.

In this phase, the Japanese also lost two special planes of considerable importance. On February 2, 1939, the Chinese brought down a Japanese heavy bomber, a Fiat BR-20, at Shayang in western Hupeh. Among the crew of six persons there was one Watanabe, chief armorer of the Japanese naval air force, holding the rank of captain, and one Lieutenant-Commander Fujida, who had established a world non-stop flight record of close circuit. Exactly two years later, on February 5, 1941, a Japanese transport plane was shot down near Chungshan, southern Kwangtung. Among the nine passengers and crew killed was Admiral Ozumi, former Japanese minister



of navy and at the time of his death a member of the Supreme War Council. He was on a trip to Hainan Island to arrange details for Japanese activities in the South China Sea. His untimely death had an adverse effect on Japanese southward ambitions.

After the Chungking aerial duel on September 13, 1940, when the Japanese lost six planes, and the Kunming battle on October 7, the Chinese Air Force took a rest which has extended to the present. Only a few surprise attacks on Japanese positions at Canton, Ichang, and other points were carried out by bombing squadrons and one major aerial battle was fought over Chengtu on March 14 when six out of 31 Japanese planes were brought down. The second phase of the second stage of the Chinese Air Force activities is expected to begin in the summer of 1941.

#### FLYING SCHOOLS

The first and best known of the training schools is the Central Aviation Academy, formerly at Chienchiao, Hangchow. It was the cradle of the Chinese Air Force and still supplies it with top-notch flight officers. The school had as its predecessors the aviation school maintained by the Ministry of War and, still earlier, the aviation department of the Central Military Academy in Nanking. Only military cadets were able to enroll in the department. A reorganization took place in 1929 when the Ministry of War school was established at Chienchiao, and it was thrown open to students with middle school education and a good physique.

The bitter lesson handed out by the Japanese air force during the Battle of Shanghai in the spring of 1932 further stimulated the Chinese to develop their air force. Accordingly, the Chienchiao school underwent another reorganization with the help of an American air mission of 13 pilots and four mechanics under Colonel John H. Jouett, former U.S. air corps officer and West Point graduate. Before returning to America in May, 1935, this mission established an instruction system of scientific flying which is still followed today, with necessary modifications, by Chinese and American instructors. Thousands of strong and keen minded Chinese youth fought twice a year for the honor of enrolling in the Chienchiao school, whose motto, like that of the Chinese Air Force, is "Quality First."

The school was reorganized once more after the present hostilities began. It confines itself to the training of flight

officers. It is open only to graduates of the Central Military Academy and its branches. The cadet, already a commissioned officer in the Chinese army, is accepted only after he has satisfactorily passed the rigid written and physical examinations. This change will insure better cooperation between the ground and air forces.

The cadets spend three years on flying lessons, which are divided into three stages. After his graduation from the school, he becomes a warrant officer for further training in a flying squadron. After six months of field experience, he becomes a second-lieutenant in the Chinese Air Force.

The Flight Sergeants' School, established in 1938, is responsible for the training of non-commissioned pilots. Candidates for this school must be junior middle school graduates and must pass strict physical and written examinations. After three months' training, the cadet begins his flying lessons, which take three years. He becomes a first class flight private upon his graduation from the school and joins a squadron. He may have a chance to enroll in the higher institution and become a commissioned officer if he can build up a meritorious service record.

For the training of qualified mechanics, the National Commission of Aeronautical Affairs established a Mechanical School in 1932. Junior middle school graduates are enrolled in this school to become mechanics. They undergo military training for three months and then spend two years studying the construction and repair of planes, motors, and instruments. The school has an advanced division for the training of aeronautic engineers. Only college graduates who majored in aeronautic, mechanical, civil, or electrical engineering are qualified to sit for the examinations. The cadets of this division receive advanced training on aircraft and ground equipment, designing and construction during their two years of study, and become aeronautic engineers when they graduate.

A number of universities and colleges maintain aeronautical engineering departments to increase the personnel for China's aviation industry.

A Juvenile School was established in the summer of 1940 to prepare boys 12 to 15 years old for training in schools run by the Chinese Air Force. The boys receive their junior and senior middle school education in this school which has a similar curriculum as other middle schools. But more emphasis

is put on the development of their air-mindedness and physique, and on military training and discipline. Upon graduation, the boys will be admitted after examinations to higher air force schools.

Besides these schools, the Chinese Air Force has maintained since the beginning of the second stage special classes for advanced training in various branches—pursuit, attack, bombardment, observation, radio, gunnery, and navigation. Men in service with their squadrons, when not called to the classes for intensive training, take time between engagements to familiarize themselves with new planes and instruments.

Going another step further to lay the foundation for a greater Chinese air force, the aeronautical commission established in December, 1940, with the cooperation of the Ministry of Education, a Glider Training Class. Boys and girls specially picked by the ministry are enrolled in the class, which has outstanding Chinese pursuit pilots as instructors. A National Gliding Association was formed in Chungking in April, 1941, to promote gliding and soaring in China. The association, which has Generalissimo Chiang Kai-shek as its president, has branch associations in the large cities and a five year plan for the promotion of the sport.

In celebration of its initial encounter with the enemy, the Chinese Air Force has made August 14 "Air Force Day" since 1940. The purpose is to promote air-mindedness among the people.

The enthusiastic support given to the Chinese Air Force by the public can be seen from the high social esteem enjoyed by Chinese pilots. The public is always ready to give anything to help the building of a greater air force. Several squadrons are made up of planes bought with donations of the general public. Szechwan launched a campaign in 1940 to raise enough money for the purchase of 100 pursuits to defend the province. Hochwan, a county some 60 crow kilometers northwest of Chungking, donated three pursuits to the Government on May 30, 1941. Journalists, students, children, Party workers, army political workers, and even prisoners are giving freely to buy planes that will bear their names. In Kweiyang, a single merchant gave enough money to buy one pursuit. A gift plane fund of US\$6,700,000 has been pledged by Chinese in America. More money is coming in from other overseas Chinese.

#### GROUND DEFENSE UNITS

Besides the fighting squadrons, the anti-aircraft units

come in for a share of the achievement of the Chinese air defense. The batteries have given a good account of themselves in the present war, especially the 75 millimeter A.A. guns which during the Nanking days registered one hit in every 300 shots. On September 20, 1937, the Japanese sent 96 planes to bombard Nanking in four waves, and the Chinese ground batteries bagged 12 of them. On November 27 of the same year, a Chinese battery stationed at Kintan defending a highway bridge shot down three enemy planes with one shell, when the lucky hit caused the first bomb-laden plane to explode thus destroying the other two. On the night of October 10, 1938, six raiders were brought down by Chinese A.A. guns at Hengyang. The batteries played an important part in the defense of lines of communication and strategic points, such as Chungking, Lanchow, Kunming, Chengtu, and the Burma Road. During the inactivity of Chinese planes in the spring of 1941, it was mainly the ground batteries that challenged Japanese raiders. The National Commission of Aeronautical Affairs has an air defense department handling air defense administration and also an Air Defense School, founded in 1934, to train gunners, searchlight and sound detector operators, observers, spotters, and intelligence officers. It takes a cadet two years to finish the course and qualify as an air defense officer. The air defense units have "Air Defense Day" on November 21, in memory of the first Chinese air defense exercise held in Nanking on that day in 1934.

The war has of course produced a number of aces and heroes in the Chinese Air Force. But little mention has been made since Nanking days by the High Command about personal records, as it is the principle of the force that honor and glory belong to the squadron, not the individual. And even squadron records have been kept under cover. Among the few exceptions were Second-Lieutenant Yuan Hsi-wen who made a forced landing behind the enemy lines in Shanghai, shot a number of Japanese, and took his own life with the last bullet rather than surrender; First-Lieutenant Sheng Tsung-hui who sank a Japanese warship in Hangchow Bay by deliberately crashing his bomb-laden plane on her deck; and Second-Lieutenant Chen Hwai-min, who rammed his damaged planes against a Japanese fighter over Hankow. These men are still the talk of the nation, and their spirit is the inspiration of thousands of youth for whose ambition "the sky is the limit."

## II. GOVERNMENT AND DEMOCRACY

### 1. CHINA'S POLITICAL STRUCTURE

Any account of the Chinese government structure must begin with the Kuomintang, China's ruling party. Organized more than forty years ago and with two million members, the Kuomintang came into power in 1927 following the successful Northern Expedition against warlords. Its founder, Dr. Sun Yat-sen, having died two years previously, did not live to see the unification of the country under his party. Its present leader is Generalissimo Chiang Kai-shek.

The supreme authority of the Kuomintang is vested in the National Congress, the delegates to which are elected by provincial and other local party headquarters. On the average the National Congress meets once every two years. The first Congress was held in 1924, shortly after the reorganization of the party, the second in 1926, the third in 1929, the fourth in 1931, and the fifth in 1935. An Extraordinary Congress was convened in 1938. It adopted a Program of Armed Resistance and Reconstruction as the nation's highest guiding principles in time of war.

The incumbent Central Executive Committee and Central Supervisory Committee were elected by the Fifth Congress in 1935. They have 260 full and reserve members, constituting the highest organs in between the National Congresses. Meeting approximately once every six months, these two committees held their eighth plenary session in Chungking from March 24 to April 2. The Central Executive Committee can decide on any matter in regard to party and government affairs, pending revision by the National Congress. It elects the chairman of the National Government, presidents and vice-presidents of the Executive Yuan, Legislative Yuan, Judicial Yuan, Examination

Yuan and Central Yuan. The latter are all responsible to the Central Executive Committee pending the promulgation of a constitution.

When the Central Executive Committee is not in session it designates a Standing Committee to take charge of routine affairs, and also a Political Committee to deliberate on matters relating to government policy and to give directives to the government.

### POLITICAL COMMITTEE

The Political Committee, also known as the Central Political Council, used to be a most powerful body. It was created in 1925 to supervise the government, the latter being appointed by the party. According to its organic law, the chairman, vice-chairman and from nineteen to twenty-five members of the Political Committee are appointed by the Central Executive Committee from among its members and members of the Central Supervisory Committee. It has the power to discuss and decide principles of legislation, administrative programs, major military and government projects, financial schemes including budgets, the appointment and dismissal of high government officials. All laws promulgated by the National Government in recent years were first passed in principle by the Political Committee. The latter also had the power to intervene in, or restrict the activities of, the five Yuan in the exercise of their respective functions. In this way, in prewar days, the Political Committee was the highest organ in the Chinese political structure serving as a link between the party and the government.

Since the war began, the name and organization of the Political Committee have undergone many changes. In August, 1937, the National Defense Council, which had hitherto been in charge of the discussion and decision of matters relating to national defense, was elevated to be the Supreme National Defense Council. Soon its functions in many respects resembled those of the Political Committee. The latter, being fairly large, had already proved too bulky during the time of emergency. Hence, the Standing Committee at a meeting on November 11, 1937, by a resolution, ordered that pending the conclusion of the war, the functions of the Political Committee should be absorbed by the Supreme National Defense Council. In reality, however, this new Defense Council was scarcely more than a reduced Political Committee. Besides being the highest organ to direct government policy in time of war, it

was also the final voice in determining government policy.

The lack of a centralized body to direct administration was increasingly felt as the war was prolonged. Therefore, in February, 1939, the Defense Council was further changed into the Supreme National Defense Committee. It bears the same mandate as its predecessor, namely, to act for the Political Committee for the duration of the war. In addition, it has the power to direct all party, government and military organs. In other words, today it not only decides upon, but executes, policy.

Generalissimo Chiang Kai-shek, as chairman of the Political Committee, has been made Chairman of the Supreme National Defense Committee. Apart from the fact that the heads of all party, political and military organs are members *ex-officio*, little is known of the exact organization of the Supreme National Defense Committee. Such information has been withheld because the major function of the Defense Committee is the prosecution of the war.

#### IDEOLOGICAL BASIS

The present Chinese political structure has its ideological basis in Dr. Sun Yat-sen's teachings, including the Three People's Principles of nationalism, political democracy and the people's livelihood. Dr. Sun divided sovereignty into two portions. The political powers were to be exercised by the people. He believed in direct democracy. Therefore, in addition to the right of election, the people should have the right to recall officials whom they have previously elected, to initiate laws and, whenever necessary, to cancel these laws by referendum.

It was Dr. Sun's belief that direct democracy should be confined to the local governments, whereas in the Central Government, the four powers of election, recall, initiative and referendum should be exercised by the National People's Congress to be elected by popular suffrage. This theory was later included in the Draft Constitution promulgated in May, 1936.

The government should be entrusted with five governing powers: executive, legislative, judicial, examination and censor. The present National Government, which derives its mandate from the Central Executive Committee and the Central Supervisory Committee of the Kuomintang, is organized along these lines. It has five departments known as the Executive Yuan, Legislative Yuan, Judicial Yuan, Examination Yuan and Control Yuan. Pending the convocation of the National People's Congress, the National Government is responsible to the Kuomin-

tang. The first three powers are too familiar to need any explanation. The two powers of examination and control are Dr. Sun's own creations based on China's traditional practices. The former is concerned with the selection of civil servants through competitive examination, while the latter pertains to the impeachment of government officials.

The Kuomintang rule of China differs from one-party administration in other countries. The party, according to Dr. Sun's teachings, should provide the necessary strength to remove all obstacles blocking China's progress toward unification and modernization. He divided the course of nation-building into three periods of military rule, political tutelage and constitutional government. During the first period, the people have no ways of directly taking part in government affairs. The government, being fully occupied with military affairs, has little time to solicit public views. Any opinion, therefore, will have to be made known to the government through the media of the party. During the second period, the Kuomintang will on the one hand direct and supervise the government in reconstruction, but will at the same time train the people and gradually familiarize them with government affairs. During the third period a constitution will be promulgated. A new government elected by the people will then take over the governing authority. By that time the Kuomintang will voluntarily accept the role of an ordinary political party.

A common characteristic of party rule is a ban on the existence of other parties. In China, however, it is somewhat different. Though without any legal status, other parties do exist in China. Unless the latter should attempt to seize power by force, to endanger or destroy by devious means the Kuomintang and the groundwork of unification it has laid, no disciplinary measures would be used against them. Quite on the contrary, the Kuomintang has been sincere in its solicitation of views and cooperation from other parties. The inclusion of members of other parties in the People's Political Council, first formed in 1938 and later reorganized in 1940, is concrete proof.

As in the case of party rule elsewhere, the Kuomintang is over and above the National Government. The legal relationship was provided in the Organic Law of the National Government promulgated in January, 1925, wherein it was stipulated that the National Government is subject to the direction and supervision of the Kuomintang. The Kuomintang's status



received further legal safeguard in the Provisional Constitution promulgated in 1931, to the effect that during the period of political tutelage, the Kuomintang National Congress will exercise the governing authority on behalf of the National People's Congress.

### THE NATIONAL GOVERNMENT

The National Government was first organized in July, 1925, in Canton with only three ministries in charge of military affairs, foreign affairs and finance. Later, it grew to sixteen units. They were all directly under the National Government which was then actually in charge of government affairs. Following the unification of the country and the establishment of the capital in Nanking in 1928, the present system of five Yuan took shape. In May, 1931, the People's Convention was held in Nanking. Besides adopting a Provisional Constitution for the period of political tutelage, it also decided to change the then existing government structure. A new organic law of the National Government was drafted in accordance with that resolution, and was duly promulgated on December 30, 1931.

As a result of the last change, the chairman of the National Government ceased to assume actual political responsibility. His position is similar to that of the French president in pre-war days. Although the Organic Law of the National Government has undergone further changes since 1931, this feature still remains intact.

The National Government itself has three divisions: First, the chairman of the National Government, the State Council with thirty-six members, and the civil affairs, military affairs, and comptroller-general's department; secondly, the five Yuan and the ministries and commissions under them; thirdly, organs directly under the National Government, of which the most important one is the Military Affairs Commission, sometimes also known as the National Military Council.

Both the chairman of the National Government and all state councillors, like the presidents and vice-presidents of the five Yuan, are elected by the Central Executive Committee of the Kuomintang. The chairman of the National Government is the titular head of the state.

### THE FIVE YUAN

The Executive Yuan, in point of actual importance, by far exceeds that of the four other Yuan. It is often likened to a responsible cabinet. There is some resemblance especially in

view of its functions and its fairly independent status. However, the greatest difference lies in the fact that the Executive Yuan is responsible to the party and not to any representative assembly. Then in regard to important administrative programs or plans, the Executive Yuan has no power to decide by itself. They will all have to be approved first, formerly by the Political Committee and now by the Supreme National Defense Committee.

As it is at present constituted, the Executive Yuan has three divisions, namely, the Secretariat, the Political Affairs Department and the Economic Council, the last one being organized only recently. Then under it, the Executive Yuan has the following principal organs:

1. Ministry of Interior
2. Ministry of Foreign Affairs
3. Ministry of Military Administration
4. Ministry of Finance
5. Ministry of Education
6. Ministry of Economic Affairs
7. Ministry of Communications
8. Ministry of Social Affairs
9. Ministry of Agriculture and Forestry
10. Ministry of Trade
11. Ministry of Food Supplies
12. National Health Administration
13. National Relief Commission
14. Mongolian and Tibetan Affairs Commission
15. Overseas Chinese Affairs Commission

and a number of smaller organizations. Of the regular ministries, those of social affairs, agriculture and forestry, trade and food supplies were established in the course of the past year.

The Legislative Yuan is not a parliamentary assembly. First its members are appointed or dismissed by the National Government upon recommendation of the Legislative Yuan president. Second, though it has the power to decide laws, budgets, amnesty, declaration of war, conclusion of peace and other international affairs, its power is very much restricted, formerly by the Political Committee and now by the Supreme National Defense Committee. The Legislative Yuan may have from forty-nine to ninety-nine members. Ordinarily, it has five committees of law codification, foreign relations, finance, economic affairs and military affairs.

The Judicial Yuan has four units. They are the Ministry of Judicial Administration, the Supreme Court, the Administrative Court and the Commission for the Disciplinary Punishment of Public Functionaries.

Under the Examination Yuan are the Ministry of Personnel and the Examination Commission.

The Control Yuan may have from 29 to 49 members. Its principal functions are impeachment and auditing. The former is exercised by members of the Yuan, while the latter is exercised through the Ministry of Audit.

#### MILITARY AFFAIRS COMMISSION

The Military Affairs Commission is directly under the National Government. It acts, on behalf of the chairman of the National Government, the military powers pertaining to him as head of the Chinese state. The commission has assumed great importance since the Japanese invasion of Manchuria in 1931 and especially since the outbreak of the war in 1937.

Under the Military Affairs Commission are the following divisions:

1. Main Office (Secretariat)
2. Board of Military Operations
3. Board of Military Administration (same one under the Executive Yuan)
4. Board of Military Training
5. Board of Political Affairs
6. National Aeronautical Affairs Commission
7. Directorate-general of Court-Martial
8. Bureau of Personnel
9. Military Advisory Council
10. Board of Supplies and Transports
11. War Area Party and Political Affairs Commission
12. Naval Headquarters
13. Directorate-general of Military Transportation
14. Commission of Awards and Compensation

#### KUOMINTANG BOARDS AND SESSIONS

The Kuomintang has an administrative machinery of its own. Under the Central Executive Yuan are four divisions: the Secretariat, the Organization Board, the Publicity Board and the Overseas Board.

The Central Executive Committee held two plenary sessions during the last twelve months. The Seventh Plenary Session took place in July, 1940, and the Eighth Plenary Session met

in March-April, 1941. In accordance with resolutions adopted at the two sessions, there have been organized under the Supreme National Defense Committee two new organs, namely, the Central Planning Board and the Party and Government Work Examination Committee. The former's task is to make and examine plans relating to all forms of political and economic reconstruction. The latter is responsible for checking up actual accomplishment. Together with executive departments of the government, they form a complete system of planning, execution and examination.

Then the formation of the Economic Council in the Executive Yuan to coordinate activities of various ministries and departments concerned and the creation of two new ministries of trade and food supplies under the Executive Yuan have also been carried out in accordance with resolutions reached by the Central Executive Committee at their last two plenary sessions.

By far the most important resolution at the Eighth Plenary Session last March-April was the adoption of a Three-Year Plan for Wartime Reconstruction. Beginning in 1942, the plan will serve as a goal for the entire nation in war and reconstruction effort. The six months from July to December this year have been set aside for preparations. The plan covers the entire field of reconstruction: political, economic, social, educational and cultural. The chief purpose is to increase China's power for war and capacity for reconstruction both during and after the hostilities.

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## 2. PROGRESS TOWARD DEMOCRACY

Generally speaking, war and political democracy make poor companions. Even in countries with long experience in popular government, the outbreak of hostilities almost immediately causes the curtailment of the people's rights and liberties, guaranteed though the latter may be in constitutions. In China, however, something different is happening. Instead of being drowned out by military operations, the current of democratization has been surging ahead in the stream of Chinese national life.

When China picked up the Japanese gauntlet in July, 1937, there was no organized body in the land to represent the people. Today, after four years of bitter struggle, a hierarchy of representation from that in the Central Government down to the smallest administrative unit in the county is gradually taking shape. It will be some time before institutionalized democracy in China comes to a par with its equivalent in Britain or the United States. The improvement, however, is as significant as a new highway cut through the countryside where none existed before.

The institution of a democratic government is the final aim of the Kuomintang, China's ruling party. Besides, the very nature of China's war has made it necessary for the country to resist and reconstruct at the same time. The building of a democratic edifice no doubt constitutes an important part of national reconstruction.

### GENERAL BACKGROUND

Though institutionalized democracy is something comparatively new in China, the fabric of Chinese society has been predominantly democratic throughout the ages. Social barriers, though existent, have never prevented movements upwards or

downwards. No one has been condemned to remain permanently in the social stratum in which he was born so long as he has ability or talent. The outlook on life is pretty much the same for the rich and the poor. Chinese history is replete with instances of how the humblest scholars became the highest mandarins. The system of competitive civil service examinations which up to the Manchu dynasty was the only mode through which public functionaries were chosen, was open to all, irrespective of birth or social station.

Economically, Chinese society is also democratic in spirit. The law of primogeniture found in many European countries is unknown to the Chinese. Property is equally divided among the offspring. The latest figures show that 93 per cent of China's land belongs to private persons. Three-fourths of the land in private hands belong to the cultivators. Only one-third of the Chinese peasants are tenants. Thus, it is clear that there is no landed aristocracy in China. The estates of the landlords are usually not large. Even if they were, equal partition among the offspring would soon reduce them to bits. Then with industries still in their early stage of development and with the Chinese Government already adopting a far-sighted policy of control, there is little accumulation of wealth in private hands. The few industrial and financial leaders found in China are dwarfs in comparison to magnates in foreign countries.

In a large sense, political democracy was not altogether absent in the old days. The country with little transportation facilities, was loosely governed. There was a considerable degree of local freedom. The sovereign power, though unqualified in theory, could only scratch the surface of things and barely touched the daily lives of the people. Real power over the community resided, through social customs of long standing, in the hands of the patriarchs and village elders. The government could not go very far beyond the collection of taxes and the administration of justice. Even the latter was often taken out of the hands of the magistrate by village elders who as mediators settled disputes before it became necessary to bring them to the magistrate's notice.

#### EARLY EFFORTS AT DEMOCRATIZATION

Though the dominant note of Chinese life has been democratic all along, efforts of converting it into an institution of government did not begin until after the Sino-Japanese war of 1895. The first reformist movement towards the end of the

last century, led by Kang Yu-wei and Liang Chi-chao, was inspired by the parliamentary democracy of Great Britain. They sought to transform the Manchu emperor into a titular executive, to establish a parliament elected by popular suffrage, and to form a cabinet responsible to the representatives of the people. This movement failed.

Of greater importance was the republican-revolutionary movement led by Dr. Sun Yat-sen, founder of the Kuomintang. Besides demanding the overthrow of the Manchu dynasty and the monarchical form of government in favor of a republic, he laid down in the second of his Three People's Principles the tenets of direct democracy, whereby the people would be endowed with the rights of election, recall, initiative and referendum. It was Dr. Sun's belief that the basis of Chinese democracy was to be found in direct participation by the people in affairs of the state. His program was enthusiastically received by the Chinese people. This later paved the way for the successful republican revolution of 1911-12. Although the first two decades of republican China were beset with civil wars and unpopular governments, the underlying current of intelligent public opinion was throughout these years along democratic lines.

Meanwhile, the parliament in Peking was fast degenerating into a tool of unscrupulous politicians and warlords. The worst case happened in 1923 when Tsao Kun secured his own election as president through illegal methods and surprised the nation by having a new constitution drafted, adopted and promulgated all in a matter of few days. Dr. Sun was at that time at the head of an opposition administration in Canton. The debacle in Peking convinced him that the Chinese people were not ready to exercise their political powers. Instead they must be trained first. Therefore in the *Fundamentals of National Reconstruction*, which he worked out in 1924, he divided the whole course of Chinese revolution into three stages of military rule, political tutelage and constitutional government. Under the leadership of Dr. Sun, the democratic movement gathered strength every day among the younger generation and the masses, and finally enabled the Kuomintang successfully to launch the Northern Campaign and to bring China once again under the rule of a single government.

Many thought that the Kuomintang, once in power, would not follow the procedure so carefully laid down by Dr. Sun.

Events since 1927, however, have proved otherwise. Military rule came to an end in 1928, and political tutelage officially began in 1929 to last for six years. The original plan was to complete all necessary preparations for constitutional government by 1935. In May, 1931, in response to popular wishes, a People's Convention was held and a provisional constitution was adopted. During the period of political tutelage, the Kuomintang would continue to exercise the governing powers as trustees of the people. The National People's Congress was originally scheduled to be held in March, 1935. However, because of the unsettled conditions which existed at the time, this was postponed to November, 1936 and then to November, 1937. The war broke out in July, 1937, to disrupt again the democratic movement in China.

That the National Government, which is answerable to the Kuomintang, is sincere in institutionalizing political democracy in the country is evident by the efforts spent on a draft constitution. The Legislative Yuan, in charge of the task, produced no less than seven versions. The final draft was promulgated by the National Government on May 5, 1936. According to that draft, all Chinese citizens above 20 years of age will be entitled to vote, provided that they take the oath of Chinese citizenship, professing loyalty to the Republic and the Three People's Principles. There are no limitations on sex or property. The draft contains a comprehensive bill of rights, including the freedom of speech, press and assembly. If not for the outbreak of the present war, the National People's Congress would have been convened on November 12, 1937, as scheduled.

#### PEOPLE'S POLITICAL COUNCIL

The tendency toward political democracy, however, did not stop altogether. Only the pace was somewhat slowed down. Immediately after the war began, the National Government organized the Advisory Council of National Defense. Leaders of different parties were included among its members. Later the need of a wider representation in the government was felt. Hence at the Emergency Kuomintang National Congress held in Hankow in March, 1938, it was decided to form a People's Political Council "in order to unify the national strength, to utilize the best minds of the nation, and to facilitate the formulation and execution of national policies." Such a council was duly organized and held its first session in Hankow in July, 1938.



As it constitutes a concrete example of China's progress toward democracy, the People's Political Council deserves a somewhat lengthy description. When first formed, the Council had 200 members. Half of them were nominated by the local governments, partly on a geographical and partly on an occupational basis. The other half were nominated by the Supreme National Defense Council "from among those who have served for more than three years in representative cultural and economic bodies or have been long devoted to political activities and have thereby contributed to national welfare." Many of those in the second category owe allegiance to political parties other than the Kuomintang. Seven of them, for instance, are members of the Chinese Communist Party, which had been at loggerheads with the Kuomintang during the ten years prior to the outbreak of the Sino-Japanese war.

All members in the First Council were appointed by the Kuomintang. Their powers were limited to receiving government reports, interpellating the government and making proposals to the government. Though originally set for one year, the First Council did not go out until the end of 1940. Altogether it held five full sessions between July, 1938, and April, 1940. To its credit go scores of important proposals, most of which have since been formulated into laws and statutes and enforced accordingly.

In March, 1941, the Second Council stepped in. It has 240 members, 40 more than in the preceding body. Then as a definite improvement, 102 of them, chosen partly on geographical and partly on an occupational basis, were elected. The functions of the Second Council have been enlarged. In addition to what the First Council enjoyed, the new body has the power to organize committees to investigate problems upon request of the government. The latter, before putting into execution any important measure with regard to domestic and foreign affairs, is required to submit it to the Council for approval. Of course, the chairman of the Supreme National Defense Council, who is none other than Generalissimo Chiang Kai-shek himself, has emergency powers, but he has to report to the Council afterwards.

As before, members of the Second Council are divided into four groups. The Group A councillors of 90 are apportioned as follows: Four each from Kiangsu, Chekiang, Anhwei, Kiangsi, Hupeh, Hunan, Szechwan, Hopei, Shantung, Honan and Kwangtung, totalling 44; three each from Shansi, Shensi,

Fukien, Kwangsi, Yunnan and Kweichow, totalling 18; two each from Kansu, Chahar, Suiyuan, Liaoning, Kirin, Sinkiang and the municipalities of Shanghai, Nanking, Peiping and Chungking, totalling 20; and one each from Chinghai, Sikang, Ningsia, Heilungkiang, Jehol and the municipalities of Tientsin, Tsingtao and Sian, totalling 8.

Group B councillors number six, four from Mongolia and two from Tibet. They were chosen from among those who have served in government organs, public bodies or private institutions in either of the two territories, or are recognized authorities on the political and social conditions of Mongolia or Tibet. There are six Group C members, chosen from among those who have resided overseas for more than three years or are recognized authorities on the problems of overseas Chinese. Mr. B. S. Fong, Chinese civic and business leader in San Francisco, is one of them. There has not been any change in the qualifications for Group D members, except that their number has been increased from 100 to 138. Most of them are connected with representative cultural, economic and political bodies.

The Second Council held its first session in Chungking March 1-10. It passed no less than 150 resolutions to guide the government in its administrative activities for the ensuing six months. Several innovations were registered. The system of speaker and vice-speaker used in the First Council has been replaced by a presidium of five members: Generalissimo Chiang Kai-shek, Dr. Chang Po-ling, Mr. Tso Shun-sun, Dr. Carson Chang and Dr. Wu Yi-fang (Miss). Dr. Chang Po-ling is president of the Nankai University and was vice-speaker of the First Council. Mr. Tso is the leader of the Young China Party and Dr. Carson Chang head of the Chinese National Socialist Party. Dr. Wu is president of the Ginling College for Women. Her election to the presidium shows the increasing part women are playing in China's political life. The First Council had only nine women members, whereas the new one has 15 altogether. Most of them were educated in Christian schools and colleges in China while the rest received training in the U.S.A. and Europe.

All cabinet ministers submitted to the session reports either verbally or in written form. They were interpellated and made replies. Many other government officials attended the session, but of course they have no vote. In fact, no government official may concurrently become councillor, though exceptions are made

for those who work in local self-government organs, educational and research institutions.

Before it adjourned, the session elected 25 members to form a resident committee which, during the recess of the Council, is competent to listen to government reports, check up on the enforcement of the Council's resolutions by the government and exercise the power of investigation so long as it does not exceed the scope set by the Council itself.

Though not every one of the councillors is elected by popular suffrage, they are in a sense representative in that they constitute the articulate section of the nation. Being men and women of ability, they exercise an overwhelming moral force.

The Second Council is to remain in office for one year. However, if the war should be further prolonged, its tenure may be lengthened accordingly. A purely wartime organization, the Council is the prelude to more pronounced democratic practices. When the time is ripe for China to have a national representative assembly, elected by the people, the experience now being gained in the People's Political Council will be found of great help.

#### A CONSTITUTIONAL EPISODE

The constitutional issue pushed aside by the war in 1937, was revived by the First People's Political Council at its fourth session in September, 1939. Altogether there were seven proposals brought up by members of various parties represented on the council. Later, these proposals were combined into one. The Council decided to petition the government to fix a date for the convocation of the National People's Congress so that a permanent constitution could be adopted.

Early in November, 1939, six weeks afterwards, the incumbent Kuomintang Central Executive Committee held its sixth plenary session. It decided that the National People's Congress be convened on November 12, 1940, and that the election of delegates must be completed by the end of June of the same year. Simultaneously the National Government announced the launching of a three-year program of local self-government, known as the New *Hsien* System. This program calls for the creation of representative assemblies in all small administrative units within the county. The aim was to give the people more practice in self-government as the latter is considered essential to the successful realization of political democracy.

Strictly speaking, the period of political tutelage was not

yet over, whereas the convocation of the National People's Congress had to wait for the inauguration of the constitutional period. That seemed to be the view of not a few Kuomintang members. However, Generalissimo Chiang, in his capacity as Tsungtsai (director-general) of the Party, declared that in his opinion constitutionalism and political tutelage are not mutually exclusive. Instead they are complementary to each other. The training of the people in the exercise of their political rights need not be confined to any particular period. Conversely, the completion of political tutelage is not an absolute prerequisite of constitutionalism. Therefore, the inauguration of the National People's Congress at an earlier date than prescribed in no way conflicts with the Kuomintang's policies. Under the present economical and cultural conditions in China, he added, the task of political tutelage cannot be easily completed within a short period of time. For this reason, the Generalissimo believed, it was perfectly sound to have a constitution while political tutelage continues as usual.

So preparations for the National People's Congress went ahead. By June, 1940, over 80 per cent of the delegates had been elected. In Chungking a special reception committee was formed to look after delegates who were then expected to come in large numbers and a large auditorium was erected as the venue. Altogether there would be close to 200 delegates. However, it soon became clear that, on account of communication and other difficulties, it would be well nigh impossible for the delegates to reach Chungking in time, especially as many of them had to come from the occupied area. As a result, the National People's Congress had to be postponed again. The closure of the Burma Road in July was a contributing factor in that it made it necessary for the government to devote its primary attention to the prosecution of war in a much more difficult international situation.

As a remedy, the National Government subsequently announced the reorganization of the People's Political Council by increasing its members from 200 to 240, by enlarging its powers, and by having 102 of its councillors elected instead of appointed. In this way, it is hoped that the People's Political Council will serve in lieu of the National People's Congress for the duration of the war.

#### PROVINCIAL ASSEMBLIES FORMED

In September, 1938, two months after the First People's

Political Council held its inaugural session in Hankow, the National Government promulgated a set of regulations governing the organization of Provisional Provincial Assemblies. Up to the end of May, 1941, such assemblies have been formed in seventeen provinces. They are Szechwan, Yunnan, Kweichow, Hunan, Hupeh, Kiangsi, Kwangtung, Kwangsi, Fukien, Chekiang, Anhwei, Honan, Shensi, Kansu, Chinghai, Ningsia and Sikang. The special municipality of Chungking, which has a status similar to that of a regular province, has also a provisional assembly.

All Chinese, over 25 years of age, irrespective of sex and with a middle school education or its equivalent, are eligible to be assemblymen so long as they fulfill either one of two qualifications: First, they must be natives of the provinces concerned and have served for more than two years in public or private organizations in the said provinces; secondly, they, though not natives must have been connected for more than two years with important cultural and economic organizations in the said provinces and have won public confidence and fame. The ratio of assemblymen chosen on a geographical basis and on an occupational basis is 6 to 4.

Group A candidates for the provincial assemblies were nominated by the county governments in consultation with the local Kuomintang offices and leading civic bodies. Their names were later submitted to the provincial governments. Group B candidates were nominated by the provincial governments in conjunction with the provincial party headquarters. Both lists were submitted to the Executive Yuan and were later approved by the Supreme National Defense Council. The last-mentioned body has the right to appoint candidates but they must not exceed twenty per cent of the entire assembly.

Before putting into execution any important administrative measure, the provincial government is required to present it to the provincial assembly for discussion and decision. In the recess of the assembly, the provincial government reports directly to the Executive Yuan for any action taken to cope with an emergency. The provincial assembly has the powers to make proposals to the provincial government, to listen to reports from the provincial government and to interpellate the provincial government.

If the provincial government should find any decision passed by the provincial assembly impossible of execution, it

may ask for reconsideration at its next session. If two-thirds of the assemblymen present should decide to uphold or revise the original decision, the provincial government, unless exempted to do so by the Executive Yuan, is obligated to put the measure into execution.

So far these assemblies have no voice over provincial budgets. Probably this is deemed unnecessary at present because both the provincial governments and provincial assemblies are appointed by the National Government. However, many provincial assemblies have petitioned the National Government that they be equipped with larger powers, including those of passing provincial budgets and adopting provincial statutes.

Originally appointed to serve for one year, these provincial assemblies have all remained in office overtime. There is a great likelihood of their reorganization in the nearest future so that at least part of their delegates will be elected by the people.

The size of the existing seventeen provincial and one municipal assemblies ranges from 50 as maximum to 20 as minimum. It is proportionate to the population in various provinces. The assemblies in Szechwan, Hunan, Kwangtung and Honan have 50 delegates each. Those in Hupeh and Anhwei have 45 delegates each. Those in Chekiang and Kiangsi have 40 delegates each. Those in Fukien, Kwangsi and Yunnan have 35 delegates each. Those in Kweichow and Shensi have 30 delegates each. That in Kansu has 25 delegates and those in Ningsia, Chinghai and Sikang have 20 delegates each. All assemblies meet once every six months in the provincial capitals or, in the case of war areas, wherever the provincial governments happen to be located.

#### NEW HSIEN (COUNTY) SYSTEM

The New *Hsien* System, aiming both at strengthening the administrative machinery from the county down to the smallest unit and at creating a machinery of representation, went under way in March, 1940. Reports indicate that the system has made a steady progress in eighteen provinces including Shantung and one special municipality (Chungking). In Szechwan, the program had been more than fifty per cent attained by June, 1941. The full materialization of the program, which has been placed on the "must" list of the provinces concerned, will be concluded by the end of 1942. For our present purpose, we need be concerned only with the second part of the program,

that is the formation of representative bodies in all administrative units in the county.

In the *chia*, which is the smallest unit and is composed of from six to fifteen households, there will be two kinds of representative councils, one comprising the heads of the component households and the other all adults in the *chia*. Six to sixteen *chia* make one *pao*. Each *pao* will have an assembly composed of one representative from each household in the unit. These assemblies will be rather large, averaging about 100 persons each. The *pao* executive as well as his deputy will be elected by the assembly. Six to fifteen *pao* form a *hsiang*, in the case of rural areas, and a *chen*, in the case of urban areas. They also will have representative assemblies, composed of two delegates from each component *pao*. The *pao* delegates are elected by *pao* assemblies.

The administrative unit above *hsiang* and *chen* is the county. Chinese counties are divided into six classes according to area, population, economic condition, cultural level and transportation facilities. All Chinese citizens, irrespective of sex, who have lived in a county for more than six months or have established their domicile for over a year, are qualified to exercise their "four rights,"—election, recall, initiative and referendum. There is no property restriction. Only opium-smokers, persons legally prohibited from owning property, and those with criminal records are barred from citizenship.

In each county there will be a county assembly composed of representatives elected by the *hsiang* and *chen* assemblies. In addition, organized professional groups may also send representatives to the county assembly but their number must not exceed thirty per cent of the total. In principle, the chairman of the county assembly is to be elected by the assembly representatives from among themselves. A statute, governing the organization of the county assembly now in the hands of the Legislative Yuan, is expected to be announced some time this summer.

As a rule, the county budget must be adopted by the county assembly before the magistrate submits it to the provincial government for approval. Only in exceptional cases may he submit it to the provincial government first, for the New Hsien System is intended to let the people control the county budget. As the general dictum goes, one who controls the purse controls everything. In that sense, the provision is significantly

democratic. For the time being, the county magistrate will not be elected by the county assembly, but will continue to be appointed by the National Government.

Several features stand out in the new system. First, there is representation in every grade of administrative unit from the smallest *chia* to the *pao*, *hsiang* and *chen* up to the county. It forms a hierarchy of indirect election. The *chia* chief is elected by the household heads. Each household sends a representative to the *pao* assembly which elects the *pao* chiefs. Each *pao* sends two representatives to the *hsiang* and *chen* assembly. Each *hsiang* and *chen* assembly, besides electing local officials, sends one representative to the county assembly.

The magnitude of the problem is obvious from the fact that there are altogether 2,000 counties in China. They comprise 88,000 *hsiang* and *chen*, 880,000 *pao*, and 8,800,000 *chia*. The New Hsien System is being carried out in every county in the eighteen provinces that is not within the war areas.

#### A PYRAMID OF REPRESENTATION

Today the Chinese are fast completing the erection of a pyramid of representative bodies. At the foot of the structure are the myriads of *chia*, *pao*, *hsiang* and *chen* assemblies. By the end of 1942, all free counties will have their representative assemblies too. Above the counties are already standing seventeen provincial assemblies. Though at present all members are appointed and their powers are rather limited, their composition is expected to become more democratic as time goes on and the members will also be equipped with larger powers, at least to the extent of adopting provincial budgets and legislating provincial statutes. Then last of all, above the provincial assemblies stands the People's Political Council. The latter body, at present the apex of the pyramid, is a wartime organization. Though all members in the first council were appointed, 102 of the members in the present council were elected. The People's Political Council is expected to remain in office for the duration of the war, meanwhile acquiring increasing democratic features. After the war, the National People's Congress, originally scheduled to be held on November 12, 1940, will be convened to adopt a permanent constitution and to elect a new government answerable to the people. By that time, China's persistent efforts at institutionalizing political democracy in these last few decades will at last be concluded.



### III. RECONSTRUCTION

#### 1. MORE COMMUNICATIONS LINES

Hostilities, inconveniences and material shortages have by no means interrupted progress in the field of communications in China, which took up arms in self-defense four years ago. In every aspect, communication facilities have shown marked improvement and additional services have been added.

It is true that two-thirds of the railways China had before the war are now in the hands of the Japanese and their puppets. Many miles of motor roads, too, have either been occupied or destroyed as the war zones spread from the coast inland. But this is only one side of the picture. The other side is more cheerful: Many miles of new railways and highways have been built in Free China since the commencement of hostilities; some of them have assumed the role of "lifelines" carrying important supplies.

The Yunnan-Burma Highway, popularly known as the Burma Road, has been in the international limelight for several years. It gained new importance as the "sole supply route to the southwestern backdoor of China" when the Yunnan-Indo-China Railway was closed following French capitulation. This masterpiece of engineering was still more talked about when, yielding to Japanese pressure, the British Government in July, 1940, announced the closure of the road for three months.

Repeated Japanese bombings of the Burma Road since it was reopened last October gave this highway further publicity. The Burma Road is vital because it is not only one of the main supply routes of Fighting China but also practically the sole remaining line over which American and British trade with Free China is maintained. "Unlike the Great Wall of China, at one time a symbol of national defense, which could also be

a barrier to foreign cooperation, the Burma Road shall always be open, and the sign of welcome will be placarded on every post along this great historical highway." This statement by Dr. Francis K. Pan, chief of the former National Highway Transportation Bureau, characterizes the situation.

In 1941, as the international situation turned more in China's favor, the construction of the Yunnan-Burma Railway with foreign financial assistance was decided upon.

Such encouraging reports have given a new impetus to communication development, and even bigger strides can be expected in 1941 and later years. Following is a sketch of the various branches of communications.

### RAILWAYS

A high official of the Ministry of Communications estimated that for the building and completion of 1,000 kilometers of railways in the Southwest, the personnel required includes 500 civil engineers, 250 mechanical engineers and 3,000 university graduates with special training in railway and business management or political science and economics. Formerly, it took at least five days to build one kilometer of railway track, now it is easily done in one day.

Early in 1941 it was agreed by British and Chinese authorities that the section of the Kunming-Burma Railway which runs from the border to Lashio is to be constructed with British funds.

In the Northwest a spur is being built from Sian northward to a rich coal mining district and the Lunghai Railway is being extended. Rails used in these constructions were salvaged from the eastern portion of the line.

The 1941 development program for railways, as worked out by the Ministry of Communications, includes the following:

"In railways, the attention of the authorities is directed to completing new lines while increasing the serviceability of the existing ones. In addition to military transportation, commercial traffic will also be increased. Although only the eastern section of the Chekiang-Kiangsi railway is operating, owing to the extended war areas, it is serving a very important purpose in shipping rice, salt and other staple products in the coastal provinces. Communications between Kweichow and Kwangsi provinces are expected to be greatly facilitated. Special engineering work has been completed on the Lunghai railway."

## HIGHWAYS

Many new roads have been completed in Free China. The annual maintenance cost alone was estimated in 1940 at about \$8,000,000, and the number of trucks in service at 6,000. This estimate was made before the re-opening of the Burma Road and the latest American and British credits.

The Burma Road is one of the major achievements since the war began. The final section to the Burmese border was completed in 11 months. Regarding this internationally famous road, Minister Chang Kia-ngau said: "The building of the western part of the Yunnan-Burma Highway was both an engineering feat and a record speed in China's road-building. It took only seven months to build this highway over some of the most difficult parts of southwest China."

Among the major accomplishments of 1940 is the Szechwan-Yunnan Highway which, opened in the spring, saves a considerable distance as compared with the highway from Kunming to Chungking via Kweiyang. The road passes through extremely difficult mountainous terrain, and crosses seven large rivers by means of two bridges and five ferries.

Another time-saving road of even greater engineering difficulties is the Hansu-Szechwan Highway. Further westward, regardless of towering mountain heights, last October saw the opening to traffic of the Szechwan-Sikang Highway. This road, built by 150,000 workers at a cost of \$5,000,000, traverses vast stretches of sparsely populated country. Most of the workmen had to be brought from central and eastern Szechwan. Because means of transportation were scarce, many of them went on foot for several hundred miles to reach their places of work.

This road, as Minister Chang once pointed out, will attract the prospector, for the wealth of that Tibetan border region is for the most part unexploited. It will appeal to the ethnologist in search of strange peoples, and to the lover of beauty, who will enjoy the great snow peaks and nature unspoiled.

Opening what once was "Forbidden Tibet" from the southeast, a highway was built from the Min river to eastern Sikang, at an estimated cost of \$30,000,000.

Construction of a third highway was begun on December 1, 1940, to connect Sikang with Yunnan. Branching off the Burma Road west of Kunming, the road will run almost straight north, most of it through mountainous terrain. The

Yunnan section is in charge of the Yunnan-Burma Railway Engineering Office at Kunming, the Sikang section under the supervision of the Ministry of Communications.

### COMMERCIAL AVIATION

Despite tremendous losses sustained as a result of the hostilities and despite repeated Japanese murderous attacks on civil aircraft, both the Sino-American China National Aviation Corporation and the Sino-German Eurasia Aviation Corporation have rendered unsurpassed service in passenger as well as freight transportation during the last four years.

Streamlined American Douglas transports and German Junkers operate daily over various domestic air routes and link up with the main international airlines in the Far East. With Chungking as the all-important center, there are today fast direct services in coordination with foreign airways to the United States, Europe, U.S.S.R. and other places. The air route from Chungking via Hami to Alma Ata in Soviet territory connects with Moscow by Russian commercial planes which maintain a regular passenger and mail service.

In 1941, the international air routes operated by the China National Aviation Corporation include the 1,307-kilometer Chungking-Hongkong run in five hours and the nine-hour service on the 2,030-kilometer line between Chungking and Rangoon. Connections at these two terminals bring Chungking to within eight days of San Francisco, nine days of New York or Washington, two days of Calcutta, eleven days of Europe via America, two days of Singapore and a week of Sydney via Rangoon, Penang, Singapore and Java. The successful trial flight from Hongkong to Delhi and Calcutta via Chungking, Kunming and Rangoon, made by the C.N.A.C. early in 1941, blazes the way for a new international line to India to be inaugurated by the company.

Within China, the two aviation companies maintain a network covering the major cities in the Southwest and Northwest.

In the course of 26 months since the summer of 1938, Japanese military planes have repeatedly attacked passenger and mail planes of the C.N.A.C. and Eurasia. The premeditated attacks on Chinese civilian planes began with the machine-gunning of the C.N.A.C.'s Douglas DC-2 passenger liner "Kweilin" over the Pearl River delta near Macao on August 24, 1938. This ill-fated ship, rechristened "Chungking

—No. 39" after a complete overhaul, was shot down by five Japanese pursuit planes over Chanyi, near the Yunnan-Kweichow border, on October 29, 1940. In this tragic incident in addition to seven passengers (six adults and one baby) who met death, W. C. Kent, 36-year old American pilot, and 26-year old air-hostess Miss Lu Mei-ying were killed in the strafed plane. Only one of the nine passengers escaped injury while another was seriously wounded. The co-pilot and the radio operator miraculously escaped unscathed.

Airplanes of the Eurasia corporation were repeatedly subjected to attacks and machine-gunning by Japanese. Only three days before the shooting down of the "Chungking" last fall, the Eurasia Aviation Corporation's 14-seater Junker No. 53 plane was shot down over Kunming by nine Japanese pursuits. It was set ablaze by machine-gun fire after it was forced to land. Among those wounded was W. Lutz, German pilot who has been with the Sino-German concern for 10 years. In trying to dodge the air-raid on Kunming by taking off from the airfield there, Pilot Lutz was wounded in the face, left shoulder and hip.

Chinese civil aviation being carried on under trying circumstances, it is estimated that the overage monthly flight of a commercial plane is 125 hours as compared with 175 hours in the United States.

#### STAGE TRANSPORTATION

In sharp contrast to flying is the revived stage transportation, already described by Marco Polo. Unpretentious, slow but steady, China's time-honored way of transporting goods by human carriers and animals has been modernized and systematized under the control of the National Stage Transportation Bureau of the Ministry of Communications, which came into existence in the fall of 1940, succeeding the Animal Transportation Bureau established in 1939.

This bureau set out last fall with \$10,000,000 to unify and organize 14,000 kilometers of ten national stage lines. Radiating from Chungking, these lines are to reach the 13 provinces of Kweichow, Yunnan, Kwangsi, Kwangtung, Hunan, Kiangsi, Chekiang, Fukien, Hupeh, Shensi, Kansu, Ningsia, and Sinkiang. Carts, horses, camels, junks and carriers are employed.

The lines operated by the National Stage Transportation Bureau are expected to extend in 1941 over at least 20,000

kilometers, transporting annually 100,000 tons of goods. For the present year the bureau plans to add 4,806 kilometers of new stage transportation lines.

Over the present lines of 15,218 kilometers of roads, footpaths, and waterways, 18,075 tons of goods were transported. The figures do not include those of the provincial lines in 13 Free China provinces.

Transportation charges collected by the bureau during the last four months of last year amounted to \$20,520,000. Merchants saved about \$2,000,000 in transportation fees by using the stage transportation bureau for shipping non-perishable goods. It is calculated that the nation saved more than \$15,000,000 in gasoline and automobile spare parts as a result.

The utilization of human and animal power to supplement wartime transportation was first suggested in the National Waterway-Highway Transportation Conference held in Chungking in October, 1938. A special bureau was subsequently established by the Ministry of Communications to handle pack animal service between Ipin (Suifu) in southern Szechwan and Kunming, Kweilin and Kweiyang, and Kweiyang and Chungking. The first stage line was opened on February 1, 1939, between Ipin and Kunming.

#### NAVIGATION

Regarding navigation, Communications Minister Chang Kia-ngau once said, "Few countries are as well served as China with large and navigable rivers, and in none has the riverine population longer experience in the utilization of waterways." Chinese boat-builders have even gone the length of designing twisted sterns for the navigation of narrow and circuitous rivers with strong rapids; such boats are still in use in Szechwan province.

It is estimated that on Free China's rivers ply no less than 15,250 junks with a total displacement of a quarter of a million tons, in addition to innumerable smaller craft. Since 1939 the Ministry of Communications' workshops and private yards have built 560 modern junks of improved model (219 in 1939 and 341 in 1940) ranging from 12 to 40 tons. For the building of junks, the ministry made loans to private concerns of \$510,000 in 1939 and \$1,200,000 last year. The new type of junk evolved by the ministry is 30 per cent faster than the traditional vessel, and is convertible into a motorized

tug. As a river junk attains a maximum capacity of 60 tons while a truck averages only three, the saving in transportation costs on freight not requiring speed is apparent.

River navigation, however, is not limited only to old and new types of junks. The Ming Sung Industrial Company which owns 70 ships totalling 25,000 tons is constructing 15 new ships (2,730 gross tons), five of which are to be completed this year. Last October the company launched with justifiable pride the first wartime steamer which it had built at the cost of \$4,000,000 over a period of 22 months, frequently interrupted by air-raids. Specially built for the Yangtze Rapids, the vessel is, apart from its British engines and boilers, entirely native built.

Employing no less than 5,400 staff members and 2,000 workers, the Ming Sung Company maintains a machine shop, a power plant and a merchandising department, besides having invested \$2,000,000 in other enterprises. Ships belonging to the company have carried large quantities of government supplies, including machinery, arms, and ammunition, transported industrial machinery, equipment, refugees and wounded soldiers into interior provinces.

Systematic dredging of inland rivers and conducting trial runs on unchartered waterways form another important aspect of navigation work. In April, 1941, improvement work for inland navigation over 9,254 kilometers of rivers in the provinces of Hupeh, Szechwan, Shensi, Kweichow, Yunnan, Hunan, Kwangsi and Sikang was reported to be partly in full swing and partly planned. Work in progress includes the 820-kilometer section from Ipin, Szechwan, to Yungjen, Yunnan, on the Gold Sand River. After the successful trial cruise by an engineering party of the Ministry of Economic Affairs and other organizations last September, engineers have set to work to make the Gold Sand River navigable in sections.

Of equal importance is the 909-kilometer course of the Chialind river from Chungking to Paishuikiang in southern Shensi which connects Szechwan with the Northwest. So far, only the section from Chungking to Hochwan is navigable to steamers of less than 300 tons throughout the year, while from Hochwan to Nanchung 200-ton steamers can run only during the high-water season.

Hydraulic work being carried out on other rivers are:

<i>Rivers</i>	<i>Section</i>	<i>Length in Kilometers</i>
Wu .....	Fuling, Szechwan to Szenan, Kweichow	343
Chi .....	Kiangtsin to Kanshuichang, Szechwan ..	190
Min .....	Ipin to Chengtu, Szechwan .....	355
Heng .....	Anpien, Szechwan to Yentsin, Yunnan ..	175
Yencheng ....	Tengchingkwan to Tzeliuching, Szechwan	73
Yuan .....	Chinyang to Changteh, Hunan .....	490
Chingshui ....	Chungankiang, Kweichow, to Chinyang, Hunan .....	416
Hsiang .....	Changsha, Hunan to Hsingan, Kwangsi	600
Kwei .....	Tsangwu to Hsingan, Kwangsi .....	348

Among the waterways under survey for navigation improvements are the 650-kilometer Ichang-Chungking and the 372-kilometers Chungking-Ipin sections of the Yangtze. Other routes in this category are as follows:

<i>Rivers</i>	<i>Section</i>	<i>Length in Kilometers</i>
To .....	Luhsien to Chintang, Szechwan .....	490
Yungning ....	Nasi to Lianghokou, Szechwan .....	144
Fu .....	Hochwan to Pingwu, Szechwan .....	556
Chingyi .....	Kiating, Szechwan to Yaan, Sikang .....	150
Mapien .....	Hokou to Mamiaosi, Szechwan .....	26
Yinshui .....	Yuanling, Hunan to Lungtan, Szechwan	240
West, Yu	Tsangwu to Pingerhkwan, Kwangsi ....	1,002
Tsuo, Lisi		
Tullu .....	Kweiping, Kwangsi to Saho, Kweichow .	905

Paralleling dredging and increased junk traffic, the number of towing stations (for crews to pull ships upstream, especially through rapids) has been raised. The Yangtze Gorges, for example, had 13 such stations by the fall of 1940 while the Chialing had 15.

#### POSTAL SERVICE

As far back as 3,000 years ago in the Chou dynasty, China had already a postal system. Marco Polo gave a vivid description of the courier relay system of the Emperor Kublai Khan of the Yuan dynasty. But the old Chinese postal service was not open to the general public. The modern Chinese Post Office was inaugurated about 44 years ago. Undaunted by the war which caused numerous difficulties in the handling of mail, the Chinese Postal Administration under the Ministry of Communications has maintained an excellent service in Free China, occupied areas as well as behind the enemy lines.

Means of carrying letters, printed matters and parcel post range from airplanes to sure-footed couriers and pack animals who reach the remotest corners of the country. Existing foreign exchange value and rising cost of operation compelled



the Post Office to affect a general increase on postage. Even after the increase, the fare for an ordinary first-class letter within the country is still only eight cents (less than half a cent in U.S. currency), the cheapest in the world.

Up to last year, post offices and postal agencies under the control of Free China numbered 66,000, of which 6,000 were recently opened. Postal routes in 1940 totaled 502,000 kilometers.

The Chinese Post Office also sponsors a postal savings service of five main classes, namely, pass-book savings, fixed savings, cheque savings, income deposits, and installment deposits.

The postal remittance service is classified into domestic and international remittances. In the domestic system it is further divided into ordinary money orders, telegraphic money orders, and agents' postal orders.

#### TELE-COMMUNICATIONS

The tele-communication system in inland China, similar to that in Europe and America, employs the telegraph as a principal means of communication and wireless or radio as an auxiliary. Because of the congestion caused by military exigencies, services of secondary importance, such as social letter telegrams, had to be abolished in wartime. Working with great courage, field gangs maintain connection with the military areas, not neglecting facilities for the population of Free China.

The prewar figure of 72,900 kilometers of telegraph lines for all China was nearly surpassed in 1940 by the figure for Free China alone. No less than 33,000 kilometers of new lines were constructed since the war began. Another 12,000 kilometers are under construction.

Construction of a long-distance telephone network in the Southwest and Northwest will be accelerated by the higher revenue from the higher tariff effective from February of this year.

Newest additions to the long-distance telephone network are the new radiophone service from Chungking to Kangting, Lanchow, and Kweilin, inaugurated in March, 1941, and the Chungking-Sichang line which came into service in April.

The highest long-distance telephone figure for all China before hostilities has now been more than equalled, although more than 20,000 kilometers of long-distance telephone lines

were taken away from Chinese control by the Japanese. Radio telephone is used as an auxiliary.

Direct radio-telephone service between Chungking and Hongkong was inaugurated on August 15, 1939, but suspended after only a fortnight when, upon the outbreak of the war in Europe, the British authorities declared the suspension of all international radio-telephone communications. For the same reason, the Kunming-Rangoon and the Hanoi-Chungking lines were also disconnected.

## 2. NEW INDUSTRIAL BASES

The increase in the manufacture of war materials, export articles and daily necessities and the development of principal industries and mining are the four fundamental tasks of economic reconstruction in wartime China. With these objectives in view, the Ministry of Economic Affairs has since its organization in January, 1937, exerted its utmost effort. It has been using government capital to establish important industrial and mining enterprises and to assist private concerns to move from war areas to the interior. At the same time, the people in the rear have been encouraged to invest in productive enterprises. The economic policy of the Government during the war period, therefore, is not merely directed to meet the exigencies of the moment but also aims at the building up of a new industrial base for the post-war period.

Soon after the outbreak of the war with Japan, the Government formulated a plan for general economic mobilization. With regard to industries, it sought the achievement of national sufficiency in industrial articles used in war within the shortest possible time, and the maintenance of factories producing articles of military and daily use and the control of the marketing of their wares. Meanwhile, it gave assistance to factories in their removal from the coastal ports, active promotion of the establishment of new factories producing articles of military and daily use, financial and technical assistance to such factories. It banned strikes and lockouts by providing military and police protection to such factories.

This outline is the key to the economic policy of the Chinese Government during the war period. All measures for wartime economic reconstruction have been designed primarily to meet military needs and for the amelioration of the people's

livelihood. Industrial output has been increased, mines have been developed, the foundation of heavy industries laid, and the operation of handicraft and light industries encouraged. Banking activities have been regulated for the benefit of industrial and commercial adjustments. A general comparison of China's economic condition after four years of the war reveals three main points of difference.

#### PREWAR COMPARISON

Firstly, before the outbreak of hostilities, China's economic enterprises were concentrated in a few coastal provinces. Today, her economic center has been shifted to the Southwest and Northwest with adequate safeguards for peaceful development.

Secondly, four years ago, there were in China only a few heavy industries for national defense. Despite the careful planning and constant encouragement on the part of the National Government, China's heavy industries were not ready for active production. Now, her national defense industries, including iron and steel, mechanical, electrical, chemical and mining projects, under government operation or private management, are in full swing. While the state of self-sufficiency has not yet been attained, she has laid a broad foundation for the energetic growth of her national defense industries.

Thirdly, prior to the summer of 1937, rural conditions in China were generally backward, especially in provinces in the Southwest and the Northwest. Today, these provinces have taken big strides in economic development. This favorable turn of rural conditions has been brought about by the following factors:

- a. Stabilization of rural finance
- b. Adoption of irrigation methods
- c. Promotion of agricultural cooperation
- d. Improvement of farming technique
- e. Exportation of farm produce

The above achievements have been made possible by the cooperative spirit of the people and government guidance. In short, they represent a threefold change in the national economy of wartime China, which is marked by the transplanting of industries from the coastal areas to the safer interior, the laying of a foundation for national defense industries and the improvement of rural economy.

Before the war, the government started a five-year heavy

industrial program with special emphasis on Hunan, Hupeh and Kiangsi provinces. The war has forced the authorities to build an economic bulwark further to the west. Since the outbreak of hostilities, the government has spared no effort in developing mining, electrical, chemical, machine and power industries in the Northwest and Southwest. Recently a three-year development program for industry and mining has been launched for the purpose of expanding equipment and increasing production on the strength of results already obtained so that the capacity of self-sufficiency may grow in direct proportion to the lengthening duration of military resistance.

### SMELTING INDUSTRY

To the smelting industry, iron and steel are of the highest importance. Accordingly, the Ministry of Economic Affairs moved the essential equipment of the Hanyang Iron and Steel Works and the Tayeh Mining Works to Szechwan, from which together with the blast furnace from Liuhokou, Honan, it has built a new iron and steel works. The ministry intends to establish another iron and steel works in Yunnan and a pure steel works in Szechwan. In addition to these three government-operated projects, the ministry has organized the China Trade Development Company for the purpose of developing the iron and steel industry in Szechwan, and giving assistance to private steel works. In the southwestern provinces the government has given assistance to the establishment of a few charcoal iron smelting and electric steel treating factories to fulfill present requirements. The ministry can purchase native iron to meet any possible shortage. During last year, gray iron, white iron and steel material were imported in large quantities. With an expected increase in output this year China will be fairly self-sufficient in the supply of iron and steel for military and industrial uses.

Next in importance to the smelting industry is coal. The ministry is trying to increase the coal production by opening new mines first in western Kiangsi and Hunan, next in Szechwan and Yunnan and finally in Shensi, Kansu and Sikang so as to meet the needs of new railroads and factories. This is an important factor in the development of industries and communications in Free China. Several alcohol distilleries have also been established in Szechwan and Yunnan to produce alcohol and gasoline substitutes.

The ministry is opening copper mines in Szechwan, Sikang and other southwestern provinces and a newly-established copper smelting factory produces copper by the electric process. In addition, the systematic production of gold, mercury, wolfram, antimony, tin, etc. is in force. In recent years the production of tin has shown a marked increase. China remains the world's largest producer of wolfram and antimony.

Heretofore, there were few electric power plants in the southwestern and northwestern provinces. The existing plants, with limited capacity, could not possibly satisfy the requirements of the moved-in factories. For this reason, the Government has enlarged the productive capacity of existing plants and at the same time added new equipment to plants located in important centers. In consequence, there are at present eleven places with electric power plants scattered over Hunan, Szechwan, Kweichow, Shensi and Kansu. The chief purpose is to select industrial centers in the interior for the establishment of government power plants so that factories in the vicinity may be assured of power supply. Although it takes some time to complete the engineering work on such projects, an adequate supply of industrial power at low cost will soon be made available over wide areas. It is anticipated that within these regions all industrial and mining enterprises will be electrified.

#### FACTORY PRODUCTS

During the early stages of the war the factories moved from cities along the coast or along the Yangtse river were 450 in number, of which 168 were mechanical in nature. The products of these factories may be grouped under five headings:

- (1) Military equipment group, especially useful to the productive work in arsenals.
- (2) Power generator group, including steam engines, crude oil engines, gas engines.
- (3) Industrial implement group, including working benches for planning, drilling, surfacing, sharpening, etc.
- (4) Manufacturing machine group, including textile weaving machines, paper-making machines, oil-pressing machine, flour-machines, sewing machines, leather-making machines, ventilating machines, bullet machines, coal-washing machines, road-leveling machines, printing machines, etc. as well as a copy of the Indian spinning and weaving machine, have been satisfactorily made.

- (5) Communication vehicles, including charcoal combustion automobiles, crude oil automobiles, animal-drawn carts, and ships have been successfully tested. The construction of automobiles and ships has been energetically undertaken. In addition, the government-operated machine works are producing boilers, steam engines, gas engines, and dynamos. Their productive capacity will be further increased later.

The electrical appliance industry is closely related to telegraphic and telephonic communication. At present, there are government-operated factories for making telegraph wire and cable, telephone equipment, engines and dynamos, electromagnets and wireless apparatus. About 28 private electric appliance factories that moved into the interior are working at full capacity. To meet urgently required articles, an electric fan factory has converted its manufacturing power to the making of wireless dispatching machines. Since 1939, government-operated factories have started to produce insulated wires, vacuum bulbs, military telephones and dry batteries; while private factories turned out a large number of wireless sending and receiving sets, as well as hand dynamos. Other kinds of appliances for electric power, electric light, telegraphy and electric batteries are being rapidly manufactured.

In the field of chemical industry, altogether some 54 private chemical works were moved into the interior. They can produce such essential chemical compounds and munition materials as hydrogen chloride, sulphuric acid, nitric-acid, pure alkali, mixed alkali, and ammonia. The Government is also assisting private industries in the manufacturing of cement, paper, paint and varnish, etc.

Government industrial and mining enterprises are mainly operated by the ministry's National Resources Commission according to a well-arranged program. Up to the present, the commission has established more than 70 industrial and mining units in interior China. Of this number, 29 belong to industry, 22 to mining and 20 to electrical engineering. Special emphasis is given to the development of mechanical, chemical, smelting and electric appliance industries, while in the field of mining, priority is given to mines having a bearing on national defense such as coal, iron, petroleum, copper and on China's barter trade with foreign countries such as antimony, tin, mercury and tungsten. In electrical engineering, hydraulic power is used if possible, for supplying new industrial needs

in the rear. It has been estimated that Szechwan alone has a potential power of 29,500,000 kilowatts. To increase gold production, the ministry has created a Gold Mining Administration.

#### HELP TO PRIVATE CONCERNS

The Industrial and Mining Adjustment Administration represents the ministry's efforts in assisting private productive enterprises in the war. The difficulties besetting the epic retreat of a large number of factories from Shanghai and later from Hankow and Ichang were largely overcome by the cooperation of the management and workers of these plants and by the untiring spirit of the staff of the adjustment administration. As most of the steamers were drafted for military service during these urgent stages of the war, thousands of tons of machinery and equipment were dismantled and shipped to the interior on small junks on the Yangtze river.

During the removal of factories, the Government paid particular attention to machine shops, factories producing electrical and chemical products because they can directly help the arsenals in their work. Priority of space was also given to cotton and flour mills and other factories essential to the livelihood of the people. In addition to lending these salvaged factories large sums of money at low interest rates, the Government purchased from abroad big consignments of materials and equipment and supplied skilled men so as to help them resume operations in designated inland places with the least possible delay.

Up to the end of 1940, factories removed to the rear through government encouragement numbered 450, while the total weight of their equipment shipped was given at 116,375 tons. The Government has also paid for or subsidized the travelling expenses of 12,000 skilled workers to the interior. This does not include the 30,000 more workers moved inland through the assistance of other sources.

Few Chinese industries had strong financial backing. After the losses they had sustained from dislocations caused by the removal of their plants, they felt more than ever the pinch of financial stringency. The factories originally located in the interior, being called upon to greatly increase their production, likewise felt it when they had to purchase new equipment. The Government readily gave them financial assistance. In doing so, preference was given to (1) industries manufacturing



articles of military use such as metals, machinery, skins and leather, and rubber goods, (2) industries manufacturing daily necessities such as cotton and woolen goods, sugar, and paper, and (3) industries that could contribute to the productiveness and manufacturing capacity of the interior as a whole. In the last group are plants producing fuel, cement, acids and soda and their compounds, alcohol and spirits, and accessories for the maintenance of communication and the generation of power needed by all factories.

Financial assistance took the form of three kinds of low interest-bearing loans; *i.e.*, those for removal, those for construction and equipment and those for current expenses. Most of the loans granted were of the second category, about 25 per cent were of the third category, and less than 10 per cent were of the first. About 65 per cent of the loans were used for the expansion of old factories in the interior and 35 per cent were used for the transportation and reopening of salvaged factories. The exact amount of the three kinds of loans was; \$800,000 for removal expenses, \$5,700,000 for construction and equipment and \$2,350,000 for current expenses. The total was roughly \$9,000,000. The Government contributed some four million dollars while the banks loaned the rest under a government guarantee.

### CHINA'S RICH MINERAL RESOURCES

China is rich in mineral resources. She supplies the world market with tungsten and antimony, and is one of the world's largest producers of tin. Her coal reserves were recently estimated at approximately 250 billion tons—enough to last almost 10,000 years at the present rate of consumption. Her iron reserves are estimated at more than one billion tons. She has substantial reserves of lead, copper, and manganese. A certain amount of petroleum and natural gas can be found in various parts of the country. In spite of the fact that China has been known as a "silver" country, she is poor in that metal, but rich in gold. In short, China is in possession of nearly all the potentialities for developing into an important industrial nation and she holds the key to many of the raw materials needed by industries in foreign countries.

The Chinese mining industry has both suffered and gained during the present war. Many mines were destroyed, and others were occupied by the Japanese. These are the losses. On the other hand, many new mines have been opened up, and

old ones enlarged. The machinery of some of the big mines in the war area had been dismantled, to be set up again in interior mines. These are the gains. In view of the expanding theater of war in China, and the increasing demand for mineral products from the interior provinces, the Chinese Government has been straining every effort to open up the vast store of underground resources in areas removed from the threat of Japanese invasion. The number of government-operated mining concessions has been increased threefold from 1937 to the first half of 1941. Recent government mining activities have made up much of the deficiencies in metal and coal supply and have increased the export of those minerals needed by foreign manufacturers.

A number of large coal mines have been newly developed under the auspices of the ministry in various parts of Kiangsi, Hunan, Yunnan, Kweichow, Kwangsi and Szechwan. They will have a combined productive capacity of roughly 500,000 tons a year when engineering and installation works are completed. Some of these mines have already started production, others will be able to produce in the near future. As the production of coal is of vital concern to the industries and the consuming public, plans are being formulated for the establishment of more collieries in Szechwan, Shensi, Kansu, Yunnan, and Kwangsi. The ministry operates a few mines itself; as to the rest, it cooperates with either the provincial authorities or private concerns in operating them.

The most important known source of oil in China is in Manchuria, the shale oil of Fushun. Japan has been able to extract from this shale deposit about 145,000 tons of crude oil a year. This has long been lost to China. The provinces of Shensi, Kansu, and Szechwan are known to have oil, too. Its existence has been proved by recent drilling tests. Wells have been sunk in Pahsien, Szechwan, and the drilling there is still in progress. The wells sunk in various places in Shensi continue to yield a small amount of oil at present. The wells in Kansu are producing oil in increasing quantities.

New iron mines have been developed in Hunan and Szechwan. The results obtained have given much encouragement to the planners. The production of the mines in Chikiang, Szechwan, alone amounted to over 250,000 tons in 1939. The former production of copper in China amounted to only a part of her enlarged military demands. It is of paramount importance that its supply should be increased. Recent measures

calculated to effect this increase include the enlarging of old mines, the exploiting of new ones, and the building of smelting plants and refineries in Szechwan and Yunnan as well as the purchasing of copper ores from the local producers and dealers in Szechwan and Sikang. A number of experts have been dispatched to prospect for this metal at the far eastern corner of Sikang.

The production of lead and zinc is mostly in Hunan and Yunnan. China produces enough lead to supply its market. Her zinc production, primarily for export, is small. A careful investigation has been made by government experts of the lead and zinc mines in these two provinces and measures for increasing their production have been devised. The ministry is prospecting for these metals in the vicinity of old mines in Hunan. Its experts have also been making investigations in Yunnan near the Burma border, and in the eastern part of Sikang. The production of mercury, once an important industry in China, is being revived. Yunnan, Kweichow, and Hunan are the greatest producers of tin in China. The ministry is cooperating with the authorities of these provinces in various projects calling for a large-scale development of the tin mines that lie within their boundaries. The tin mines and smelters in southern Yunnan are producing the major portion of tin in China. The annual production from Yunnan is 10,000 tons.

#### PREMIUM ON THE SOUTHWEST

The dislocation of the mining industry in coastal regions has placed a premium on mining in southwestern China. The Government has given a further stimulus by providing shipping facilities to private mining enterprises. In the case of coal, private individuals may apply to work concessions through a temporary sanction of the provincial authorities. As a result of these encouraging factors, mining enterprises in the Southwest have multiplied quickly. Many mineral products found in China are important in war industries. China has to retain them for her own use and also prevent them from reaching her enemy. For this reason, soon after the war started in July, 1937, the Government laid a general embargo on the export of cinnabar, mercury, lead bars, scrap metal, iron ore, pig iron, wrought iron, steel, and manganese ore. It has also prohibited both direct and indirect sale of antimony and manufactures thereof to the enemy. The sale of tungsten having been placed under government control before the war started,

there was no need of any further action concerning its export.

Since many mines were located in or near the theater of war, the Government has found it necessary to order the removal of all endangered mining establishments to the rear. Transportation facilities have been provided, and loans granted for the removal of their important machinery as well as for the purpose of utilizing such equipment further inland. During the period under review, over 4,000 tons of essential machinery belonging to the Chungfu, Chunghsin, and Hwainan collieries have been removed. That belong to Chungfu has been divided among several mines in Szechwan and Hunan. In Szechwan the Government has granted loans for the expansion of the Tienfu Coal Mines, which are among the largest in that province.

It may be observed that while China has suffered in more ways than one from the current war, the adversity that has befallen her has sometimes proved to be a blessing in disguise. The fact that the rich mineral resources of the Southwest are being tapped must be viewed as one of these blessings.

#### OTHER MEASURES OF ENCOURAGEMENT

In addition to the government assistance in removing industrial and mining establishments to the interior and in resuming operations in designated places, the ministry has announced other encouragement measures during the four years of the war. They include reduction of customs tariffs, special freight rates on national communication lines, subsidies and bonuses, patent rights to discoveries, inventions and improvements on industrial devices, tools and implements, extension of loans to small industries and handicrafts and permission to Chinese and foreigners to invest in special government companies with paid-up stocks and limited liabilities. The last provision is especially interesting because it opens a way for individuals or private sources to invest in the government's important reconstruction activities in the rear. Recently the Government has decided to utilize part of the proceeds from the sale of savings certificates for industrial development. The amount is set at \$100,000,000.

Among the laws and regulations governing wartime industries promulgated by the Government, the following may be mentioned: (1) Regulations Governing Wartime Control of Agricultural, Mining, Industrial and Commercial Enterprises, (2) Regulations Governing the Grant of Financial Assistance

to Industrial and Mining Enterprises, (3) Law on Industrial Associations, (4) Principles Governing the Removal of Factories and Mines, (5) Principles Governing Loans to be Granted to Factories and Mines, (6) Regulations Governing the Promotion of the Hand-Weaving Industry.

In the past four years, fifteen new industrial bases have been established in the rear. According to a report made at the end of 1940, factories which had a capitalization of more than \$10,000 and more than 30 laborers and which employed power in their production in the fifteen new industrial bases totaled 1,354. They are classified as follows:

Mechanical Industry .. .. .	312
Mining and Metallurgical Industry ..	93
Electrical Industry .. .. .	47
Chemical Industry .. .. .	361
Textile Industry .. .. .	282
Miscellaneous .. .. .	259

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Total .. .. . 1,354

China's pre-war industrial development had the defects of being concentrated mainly in coastal cities and of being too slow in its progress. The war has helped remove these defects. Today China is making big strides in industrial development in the interior despite tremendous difficulties. While it is hard to obtain accurate production figures of all small factories and mines scattered everywhere in Free China, the 1940 total value of output of important industrial and mining establishments under direct control of the Government is as follows:

Coal .. .. .	\$ 114,000,000
Iron & Steel .. .. .	127,000,000
Gold .. .. .	280,000,000
Copper .. .. .	1,200,000
Tungsten .. .. .	65,000,000
Antimony .. .. .	10,000,000
Tin .. .. .	160,000,000
Mercury .. .. .	5,000,000
Other metals .. .. .	2,500,000
Machine Making .. .. .	67,000,000
Manufacturer of Electrical Appliances	181,000,000
Chemical Industry .. .. .	1,438,000,000
Textile Industry .. .. .	1,763,000,000
Food Industry .. .. .	39,000,000

Power Industry	..	..	..	..	..	99,000,000
Miscellaneous	..	..	..	..	..	342,000,000
GRAND TOTAL						<u>\$4,693,700,000</u>

During the war years, the ministry, empowered by the National Government to plan, administer, adjust and control the supply, demand, marketing and prices of commodities, has placed numerous articles under government control. They include iron, steel, copper, cement, coal, cotton, cotton yarn and cotton piece goods, all of which have an important bearing on national defense and the livelihood of the people.

Adjustment of prices of daily necessities in the early stages of the war was guided by a set of regulations promulgated by the ministry on February 20, 1939. These regulations prohibited speculation and provided for the establishment of price adjustment committees by local authorities and organizations. Such committees were authorized to fix local wholesale and retail prices in accordance with the legal rate of interest and profit.

In December, 1939, the ministry organized the National Price Stabilization Marketing-Supplying Bureau, which, capitalized at \$20,000,000, was to supply Chungking and other big Free China cities with cheaper daily necessities mostly purchased in Shanghai and other localities having better supplies.

#### IRON AND STEEL NATIONALIZED

On January 24, 1940, the ministry announced the nationalization of iron and steel in the interior provinces. Despite untiring efforts, the supply of the metals still lagged far behind the demand. The Iron and Steel Control Commission was jointly established by the ministry and the Ministry of War on February 12, 1940 to help China attain self-sufficiency in the two metals.

At the same time, men were stationed in different places to stimulate importation of iron and steel. Customs and transportation facilities were given to incoming shipments. Precautionary measures were also taken against smuggling out and trading with the enemy. Shipping permits were issued to help their holders overcome transportation and inspection red tape.

In Chungking, the heart of Free China's iron and steel market, the control commission fixed prices for different types of iron and steel according to the rising cost of production and

the general price level. The commission also registered the transactions and movements of the metals, besides banning hoarding and profiteering. All stocks purchased by the commission were turned over to the Department of Ordnance for military use.

The production of native iron increased threefold between 1937 and 1940. Its price, fixed by the commission, was quoted at \$2,200 a ton in January, 1941, as against \$1,100 a ton a year before. Because of the importance of native iron to the iron supply in the interior, the government created a native iron control bureau. Supplying 50 per cent of Free China's total, Szechwan has been divided by the bureau into several control zones. Three-fourths of the iron output from the local furnaces are assigned to military, and one-fourth to general industrial use. The bureau collected more than 20,000 tons of native iron in Szechwan between April and December, 1940.

To supply the electric copper refineries of the National Resources Commission with raw materials, the ministry, in October, 1938, established the Szechwan-Sikang Copper Control Bureau which was authorized to erect four copper smelters in three Sikang districts. No copper smelters are allowed in the two provinces without registration with and approval by the bureau. Furthermore, copper and copper goods of all kinds must be sold to the bureau, and no shipment of or transactions in copper and copperware is permitted without a permit from the authorities. The purchase price of copper is fixed by the bureau and the reconstruction departments of the two provinces. The price per ton of copper of 85 per cent fineness was \$4,200 in December, 1940, as against \$730 in November, 1938.

The Cement Control Commission was organized by the ministries of war, communications and economic affairs on May 22, 1939. In addition to the two existing ones, more cement works will be open soon in Yunnan, Kweichow, and Kwangsi. The commission approves the sale of cement only for most essential purposes. The distribution of cement between June, 1939 and December, 1940, was as follows: 29.3 per cent for military construction, 38.9 per cent for communications, 19.5 per cent for industrial use, 5.8 per cent for hydraulic work and 6 per cent for other purposes.

Before the war, the present area of Free China used only 1,000,000 tons of coal a year. Today the demand has increased several times over. The ministry's Fuel Control Bureau has

control over coal mining, marketing and prices in the Chialing and Min rivers areas in Szechwan province. According to the ministry's regulations, all coal mines lacking capital, equipment or transportation means may borrow money from the bureau. Up to the end of 1940, \$2,800,000 were loaned to mine owners and merchants along the two rivers. Technical advice on how to increase production was also given. A 60 per cent increase in output was registered by the Chialing river mines and a 30 per cent increase by the Min river mines last year. Coal, like cement, is supplied to private users according to plan.

Although Free China does not lack cotton, the shortage of cotton piece goods and cotton yarn has been acute. The ministry estimate that Free China needs annually a minimum of 130,000 bales of cotton yarn and 1,000,000 bolts of cloth from outside every year to supplement local production. The Agricultural Credit Administration, under the direction of the ministry, is principally concerned with adjusting supply and demand of cotton and cotton products. This involves shipment of cotton from producing to non-producing areas, promotion of hand weaving and spinning and purchase of cotton and cotton piece goods in occupied areas.

#### SELF-SUFFICIENCY AND RECONSTRUCTION

In conclusion, China's wartime economic policy aims at self-sufficiency and reconstruction. The activities of the ministry are directed toward the fulfillment of a threefold purpose: (1) encouraging production in the rear, (2) assisting industry, mining and commerce and (3) promoting new enterprises. Since the westward removal of industrial plants, the Government has promulgated many laws and regulations for assisting and stimulating production in the rich interior provinces. That is why the Government appropriates large amounts of money to start big productive undertakings of its own; and at the same time, financial and technical assistance is being given to private enterprises so that they may produce with maximum efficiency. With an appropriation of \$10,000,000 for writing war risk insurance policies, the Central Trust of China, a government institution, encourages industry and stimulates production by giving full protection to industrial plants in operation as well as export commodities in transit.

From the above survey it can readily be seen that China has made notable progress in economic reconstruction during the past four years. This war of resistance has afforded her



a unique opportunity for economic reconstruction and taught her people the urgent need of attaining a fair degree of economic self-sufficiency. Up to the commencement of hostilities the hidden wealth in the southwestern and northwestern provinces remained unexploited, while industrial enterprises and technical experts were never fully utilized in any systematic development of China's natural resources. More than any other single force, the war has given a powerful impetus to the great movement of economic reconstruction in China. It has aroused nationwide interest in an all-round development of the interior provinces. It has attracted business leaders and technical experts to participate in reconstruction projects in the hinterland.

Under government guidance and encouragement, men, money and materials have been mobilized to augment China's power of resistance. This national movement of economic reconstruction, arising from the exigencies and ravages of war, will be long remembered as the leading constructive phase of the hostilities that has laid a solid foundation for recovery and general economic progress in postwar China.

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### 3. SCIENCE FOR THE GOOD EARTH

War has brought about miraculous changes on Chinese farms. China's good earth, which for untold centuries has defied any organized attempt at reforms, is now being conquered by science. It is through scientific production on her expanded farm front that agricultural China can beat military Japan.

During the four years since the outbreak of Sino-Japanese hostilities, China's agriculture has made tremendous progress. This is evidenced by the steady increase in production and acreage of land under cultivation. The upward trend assumed dramatic proportions as early as 1938 when increases were registered in all crops.

The 1938 crops included 202,911,000 piculs<sup>1</sup> of wheat, 746,146,000 piculs of rice, 90,338,000 piculs of barley, 43,694,000 piculs of peas, 47,644,000 piculs of horse beans, 35,846,000 piculs of rape, 3,118,000 piculs of oats, 68,664,000 piculs of glutinous rice, 33,969,000 piculs of kaoliang, 23,836,000 piculs of millet, 9,274,000 piculs of glutinous millet, 70,249,000 piculs of corn, 36,267,000 piculs of beans, 275,520,000 piculs of sweet potatoes, 4,688,000 piculs of cotton, 22,024,000 piculs of peanuts, 5,505,000 piculs of sesamum and 8,245,000 piculs of tobacco.

The prewar 7-year averages of these crops were 169,160,000 piculs of wheat, 725,839,000 piculs of rice, 88,553,000 piculs of barley, 41,295,000 piculs of peas, 44,120,000 piculs of horse beans, 36,642,000 piculs of rape, 2,961,000 piculs of oats, 62,530,000 piculs of glutinous rice, 32,476,000 piculs of kaoliang, 25,159,000 piculs of millet, 10,077,000 piculs of glutinous millet, 59,407,000 piculs of corn, 39,294,000 piculs of beans, 215,331,000 piculs of sweet potatoes, 4,831,000 piculs of cotton, 20,081,000

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1 A picul is equivalent to 50 kilograms.

piculs of peanuts, 6,968,000 piculs of sesamum and 9,245,000 piculs of tobacco.

The figures given above covered the 15 provinces of Shensi, Kansu, Ningsia, Chinghai, Honan, Hupeh, Szechwan, Yunnan, Kweichow, Hunan, Kiangsi, Chekiang, Fukien, Kwangtung and Kwangsi.

The increase continued in 1939 when an average increase of 15 per cent in summer crops over 1938 was reported in the four provinces of Hupeh, Szechwan, Kweichow and Kwangsi. Winter crops in the 12 provinces of Kansu, Shensi, Honan, Hupeh, Szechwan, Yunnan, Kweichow, Hunan, Kiangsi, Chekiang, Fukien and Kwangtung were 10 per cent higher than in 1938. Throughout these provinces, winter crop acreage was 44,091,834 acres, or 60 per cent of the total arable land, an unprecedented increase in the land for winter crops. The 1939 production would have been still larger if the northwestern provinces had not suffered from drought.

Among the summer crops of 1939 in 15 Free China provinces, rice yielded 762,678,000 piculs as compared with 746,146,000 piculs in 1938, kaoliang 34,273,000 piculs against 33,969,000 piculs, millet 24,013,000 piculs against 23,836,000 piculs, corn 71,158,000 piculs against 70,249,000 piculs, beans 37,461,000 piculs against 36,267,000 piculs, cotton 5,833,000 against 4,688,000 piculs, sesamum 8,068,000 piculs against 5,505,000 piculs and tobacco 9,782,000 piculs against 8,007,000 piculs in 1938.

Winter crops for 1939 included 91,534,000 piculs of barley against 90,388,000 piculs in 1938, 47,172,000 piculs of peas against 43,694,000 piculs, 52,359,000 piculs of horse beans against 47,644,000 piculs, 43,111,000 piculs of rape against 35,846,000 piculs and 3,375,000 piculs of oats against 3,118,000 piculs in 1938.

The increase in agricultural production was in 1940 partially retarded by natural causes—drought, flood and other disasters beyond the control of science. However, unaffected crops continued to give a higher yield. They included 48,539,000 piculs of rape against 43,111,000 piculs in 1939, 10,889,000 piculs of glutinous millet against 9,654,000 piculs, 40,814,000 piculs of beans against 37,461,000 piculs, 261,366,000 piculs of sweet potatoes against 247,721,000 piculs, 7,021,000 piculs of cotton against 5,833,000 piculs, 24,462,000 piculs of peanuts against 22,544,000 piculs, 8,411,000 piculs of sesamum against 8,068,000

piculs and 10,516,000 piculs of tobacco against 9,782,000 piculs in 1939.

By this crop increase, China has surprised everybody. With considerable arable land lying in the fighting areas, besides that under control of the enemy, and a percentage of her farming population conscripted, the logical result would have been a drop instead of a rise in her farm production. The explanation for this paradoxical development is not far to seek. The miracles accomplished by science in other countries have been repeated in China at the time of her direst needs.

Better seeds have been distributed, imported or newly developed varieties propagated, better farming methods taught and newly manufactured farming implements introduced and effective control of insect pests enforced.

China's agricultural experts were mobilized like her army forces. Manning numerous agricultural organizations, they have been instrumental in bringing science to China's good earth.

#### MINISTRY OF AGRICULTURE AND FORESTRY

At the head of China's agricultural organizations is the Ministry of Agriculture and Forestry. The first of its kind under the National Government of China (its only predecessor was the Ministry of Agriculture and Mining under the government in Peking), the ministry was inaugurated on July 1, 1940, with General Chen Chi-tang, former governor of Kwangtung, as minister and Messrs. Chien Tien-ho, former director of the department of agriculture and forestry of the Ministry of Economics Affairs, and Lin Yi-chung, formerly civil affairs commissioner of the Kwangtung provincial government, as vice-ministers.

The ministry has five departments—general affairs, agriculture, rural economy, forestry, fishing and animal husbandry. Affiliated is a land reclamation bureau.

The general affairs department handles personnel, finances, publications and other business routine.

The agriculture department makes experiments in crop improvement, promotes rural industries, effects land readjustment, enforces insect control, investigates and improves soil and fertilizers, introduces improved seeds and farming implements, directs the work of agricultural civic organizations and academic institutions.

The activities of the rural economy department embraces land tenancy reform, distribution of rural loans, supervision of rural cooperatives, experiments in collective farming, surveys and research in rural economy and other rural welfare undertakings.

The forestry department surveys areas for afforestation, divides forest lands into districts with a view to effective control, establishes tourist forest centers, public parks and gardens, gives protection to public and private forests, directs the work of civic and academic forestry organizations and promulgates laws on hunting and policing.

The fishing and animal husbandry department concerns itself with the promotion of veterinary science, improvement of livestock, protection of animals, fowls and water products, supervision of fishing and animal husbandry organizations.

#### AGRICULTURAL CONFERENCE

The establishment of the new ministry meant a new day in Chinese agriculture. Further improvements were discussed at the National Agricultural Administrative Conference held under the auspices of the ministry in Chungking in March this year at which 102 resolutions were adopted. They covered agricultural administration, agriculture, forestry, fishery and animal husbandry, rural economy and land reclamation.

Principal resolution called for the adoption of a three-year agricultural program of eight points: the use of scientific methods for increasing agricultural, forestry, fishery and animal husbandry products, particularly of food and clothing materials, export products and raw materials for industries; the development of agricultural, forest, fishing and animal husbandry resources and improvement of existing methods; the control of insect pests and plant diseases, prevention of accidents and losses; the adaptation of farm products to domestic and foreign demands; the strengthening of rural economy by increasing rural credits and insurance and promoting home industries; the integration of production, transportation and distribution; technical and economic research in agriculture, forestry, fishery and animal husbandry.

Other resolutions called for the "maximum utilization of land" and "farmers to own their land" as cardinal principles of Chinese agriculture; closer cooperation among agricultural organizations, government and private; a comprehensive study of the soil in all parts of the country. The establishment of

research organs for insect pests and farm implements, a graduate school for agricultural students, a \$100,000-bone meal factory in the Northwest, a farm implement factory, a national tea plantation and a national horticultural experiment station were also decided upon at the conference.

#### AMERICAN FERTILIZER EXPORT

As an immediate outcome of the agricultural conference, a China Fertilizer Corporation has been organized in Chungking. The corporation has on its brain trust Mr. G. F. Winfield, American agriculturist and fertilizer specialist who arrived in Chungking in response to an invitation to join the corporation as its adviser. His duty is to look after the proper disposal of the waste of the city to turn it into good fertilizers. Trivial as the job may sound, it will mean a million dollars a year to the corporation.

The scheme takes the form of a garbage disposal plant being erected by the corporation on the south bank. The city's refuse and night soil are to be transported to this plant and manufactured into fertilizer. When the plant is in full operation, it will turn out 15 to 20 tons of manure daily, and the annual output will be around a million dollars' worth of fertilizer.

The significance of the plant, according to Adviser Winfield, is not limited to its financial returns. It will also help decrease China's death rate. One quarter of China's deaths, he said, is caused by fecal-borne diseases. They can be prevented if the refuse is properly disposed of. In Chungking and other cities in China, garbage is usually dumped into the river and the night soil used as manure without scientific treatment. At the new plant night soil and other waste are compounded and heated to kill the bacteria. Care is taken to retain the nitrogen, one of the most important requirements of the soil.

The China Fertilizer Corporation also plans to take over the management of the bone meal factory now in operation in Chungking, in addition to the one to be established in the northwest in accordance with a decision of the agricultural conference. Bone meal products are important as the soil needs chemical as well as organic fertilizers.

The Ministry of Agriculture and Forestry is sponsoring a big plan for increasing foodstuffs this year. In the 14 provinces of Kansu, Shensi, Honan, Hupeh, Szechwan, Yunnan, Kweichow, Hunan, Chekiang, Fukien, Kiangsi, Kwangtung, Kwangsi and

Sikang, foodstuff production this year is expected to be raised by 32,180,000 piculs. This figure does not include savings through protective measures.

Farmlands in the 14 provinces are to be extended. It is estimated that the production of foodstuffs can be increased by 100,000 piculs by utilizing open spaces; by 1,000,000 piculs by reclaiming wasteland; by 18,500,000 piculs by extending winter crop acreage; and by 7,000,000 piculs by converting certain farmlands into cereal fields. In addition, the propagation of better seeds, the enforcement of more rigid anti-pest and anti-insect measures, the employment of better fertilizers and the introduction of improved farming methods will bring about increases of 2,400,000 piculs, 830,000 piculs, 1,000,000 piculs and 1,350,000 piculs for the four types of improvement. The improvement of irrigation will also contribute to the increase of crops.

#### PREMIUM ON EXPORTS

Efforts are also directed towards increasing the output of exportable products with particular emphasis on southwest *tung* oil, northwest wool, southeast tea and Szechwan silk. In this work, the Ministry of Agriculture and Forestry has the cooperation and financial support of the Foreign Trade Commission which has a special committee in charge of a five-year production increase plan. The commission has spent \$4,600,000 since the plan was launched in the latter half of 1940.

According to the plan, *tung* oil production in Szechwan, Hupeh, Hunan, Kweichow and Kwangsi is to be increased to 1,300,000 piculs in five years. Besides existing *tung* tree plantations of more than 1,500,000 *mow*<sup>1</sup>, the five provinces will add another 3,900,000 *mow* of *tung* tree forests, with 2,500,000 *mow* in Kwangsi, 500,000 *mow* in Szechwan, 400,000 *mow* in Hunan and 250,000 *mow* each in Kweichow and Hupeh.

An increased wool output of 420,000 piculs is expected from Kansu, Ningsia, Chinghai and the northwestern tip of Szechwan where sheep are raised on the western Mongolian and northeastern Tibetan steppes. Modern veterinary science and proper management are being introduced to increase the number of northwest sheep from 15,000,000 to 20,000,000 in five years.

To increase and improve the tea production in the southeastern provinces of Chekiang, Fukien, Hunan, Kiangsi and

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<sup>1</sup> A *mow* is about one-sixth of an acre.

Anhwei, new plantations are to be established and young trees planted to replace old ones. Tea farmers are being trained to grow better tea and workers to do better processing. Co-operative societies for growing and processing tea are being organized and new tea colonies founded in Szechwan, Sikang and Yunnan to increase production. Szechwan and Sikang may be able to produce 500,000 piculs of tea within five years.

The goal for silk is set at 160,000 piculs to be produced in southwestern China with Szechwan as center, supplemented by Sikang, Yunnan, Kwangsi and Kweichow. The Ministry of Agriculture and Forestry is directing the production and distribution of improved silkworm eggs and mulberry trees and the cultivation of autumn silkworms. Chekiang, Kwangtung, Hunan and the lower Yangtze districts under Chinese control are also expected to increase their silk output.

Working under the ministry in the promotion of scientific farming in wartime China are several national organizations which have on their staff the nation's ace agriculturists. They include the National Agricultural Research Bureau, the Agricultural Credit Administration and the Agricultural Production Promotion Commission. The first two organizations were organized before the war, the third soon after the outbreak of the war. The Agricultural Credit Administration has been reorganized and is now concentrating on the production of cotton and cotton yarn.

#### AGRICULTURAL RESEARCH BUREAU

The National Agricultural Research Bureau was founded under the Ministry of Industries in January, 1932. It then consisted of three main departments dealing with plant production, animal production and agricultural economics. Under the Plant Production Department were three sections: agronomy, forestry, soil and fertilizers and plant pathology and entomology. The Animal Production Department was divided into the two sections of sericulture and animal husbandry and veterinary science. Crop reporting and agricultural management came under the Department of Agricultural Economics.

Removed from Nanking, first to Changsha during October, 1937, and to Chungking early in 1938, the bureau was affiliated with the Ministry of Economic Affairs which was reorganized from the Ministry of Industries in January, 1938. Its work was then divided into eleven branches, namely, rice, cotton, wheat and small grains, horticulture, forestry, sericul-



ture, animal husbandry and veterinary science, marine products, soils and fertilizers, plant pathology and entomology and agricultural economics.

Most of the existing agricultural organizations were merged with the bureau. They included the Central Livestock Breeding Station, National Silk Improvement Commission, Nanking Sericulture Improvement Station, Hangchow Mulberry Nursery, Sericulture Instruction Bureau of Szechwan, Sericulture Instruction Bureau of Chekiang, Silk Improvement Station of South China, Silk Improvement Committee of Chefoo, Cotton Industrial Commission, Central Cotton Improvement Institute, Cotton Products Improvement Bureau of Honan, Shansi, Shensi and Hupeh, Cotton Products Improvement Committee of Hopei, Cotton Improvement Bureau of Kiangsu, Cotton Culture Instruction Bureau of Shantung and Kansu, National Rice and Wheat Improvement Institute, Central Bureau of Forest Administration and the Livestock Breeding Station of the Northwest.

With the amalgamation, the bureau's staff was increased to more than 200 trained men, all graduates of agricultural colleges in China or abroad. They work under the able leadership of Mr K. S. Sie, director, and Dr. T. H. Shen, assistant director. Both are American-trained agriculturists, the former being formerly dean of the College of Agriculture and Forestry of the University of Nanking.

The bureau maintains five main stations in the five key provinces of Szechwan, Kweichow, Hunan, Kwangsi and Yunnan. Their task is to increase and improve the particular products for which these provinces are noted. Agricultural research work has been conducted by the bureau throughout the 15 provinces of Ningsia, Chinghai, Kansu, Shensi, Honan, Hupeh, Szechwan, Yunnan, Kweichow, Hunan, Kiangsi, Chekiang, Fukien, Kwangtung and Kwangsi. The main fields of research and extension work in these provinces include plant breeding and the propagation of selected and improved seeds, study of soils and fertilizers, animal husbandry and veterinary science, sericulture and forestry.

The achievements in farm production of the bureau's five main stations, staffed by 15-35 experts each, in the provinces of Szechwan, Kweichow, Yunnan, Kwangsi and Hunan is noteworthy. In Szechwan, for instance, the acreage for improved cotton in 1937 was 9,015 *mow*. It was increased to 67,485

*mow* in 1938, 133,582 *mow* in 1939 and 520,000 *mow* in 1940. Among the imported strains were Delfos and Trice which yielded 44 to 63.4 cattles per *mow*. Yunnan added 89,000 *mow* of cotton in 1939, in addition to perennial cotton plants which numbered 304,000 in 1939 and 1,000,000 in 1940. In Kweichow, cotton was grown over 13,000 *mow* in 1939, and 20,000 *mow* in 1940. Sikang had 3,000 *mow* of cotton in 1939. Kwangsi added 200,000 *mow* of wheat and 162,000 *mow* of *tung* trees in three years, while Szechwan extended rape growing by 900,000 *mow* in 1940.

#### AGRICULTURAL CREDIT ADMINISTRATION

The Agricultural Credit Administration has been chiefly engaged in extending loans for the development of irrigation and improvement of agricultural production. Up to the end of 1939, \$11,630,000 had been loaned to farmers in Free China in the form of agricultural and irrigation credits. The investment has benefited 172,038 *mow* of land in Szechwan, Sikang, Kwangsi, Yunnan, Kweichow, Shensi, Kiangsi and Honan. Other irrigation projects, when completed, will benefit 555,151 *mow* more. In the field of farm production and marketing, the administration had loaned \$10,240,000 to farmers by the end of 1939. The amount was used for land reclamation, promotion of cotton, *tung* trees and Szechwan oranges and popularization of silkworm raising.

Loans issued by the administration for irrigation development and for general agricultural improvement in 1940 totalled \$22,000,000. The work of the administration is brought out by a survey of the Ministry of Economic Affairs. It shows that new hydraulic construction completed in Free China since the war has brought water to 2,165,000 *mow* of arid land and made it productive. Another 2,716,800 *mow* of land will be benefited in a year or two when irrigation channels now under survey or construction are completed.

The contribution made by the National Agricultural Production Promotion Commission of the Executive Yuan towards the development of scientific farming in China is emphasized by its 1940 record. Increase in agricultural production in that year as a result of the commission's efforts was valued at \$19,260,987.

The commission's nationwide agricultural promotion program in 1940 included plant and animal production, irrigation and river conservancy, rural subsidiary industries and establish-

ment of agricultural extension systems. This fourfold program was realized in the provinces of Szechwan, Sikang, Shensi, Kansu, Honan, Hupeh, Hunan, Kwangsi, Kweichow, Yunnan, Chekiang, and Kiangsi.

The \$19,260,987 increase in farm production was brought about at a cost of only \$1,102,242. Of this amount, \$253,600 was used for crop extension, \$125,900 for crop disease prevention and insect control, \$16,692 for horticultural extension, \$5,000 for afforestation, \$12,040 for special crop extension, \$5,000 for increase of livestock, \$53,884 for sericultural extension, \$30,000 for irrigation and river conservancy, \$30,000 for fertilizer extension, \$35,700 for rural subsidiary industries, \$142,432 for setting up extension organizations, \$32,900 for training extension agents, \$147,930 for training and extension of weaving enterprises, \$16,000 for agricultural extension demonstrations, \$88,500 for agricultural extension experiments and investigations and \$106,664 for experiments in agricultural extension on a *hsien*-unit basis.

The commission's chairman is Mr. Mu Ou-chu, one of China's leading rural economists, who is located in its Chungking headquarters. Among its technical experts is Mr. Chiao Chi-ming, head of the Department of Agricultural Economics of the College of Agriculture and Forestry of the University of Nanking. He directs the commission's field activities from the Chengtu branch office.

#### FARMERS' ORGANIZATIONS

One of the important tasks undertaken by Mr. Chiao as director of the Commission's technical department has been the organization of China's farmers. The work was started in Szechwan and then slowly extended to the provinces of Kwangsi, Kweichow and Shensi. To date 48 farmers' associations have been organized. Of these 42 are in Szechwan, four in Shensi and one each in Kweichow and Kwangsi. Preparations have been completed to proceed with organization in the provinces of Honan, Kansu, Fukien and Hupeh. The commission hopes eventually to extend the movement to all parts of Free China.

With the organization of the farmers' associations, agricultural promotion is facilitated as the institutions engaged in it need not deal with individuals but can work through the rural community as a unit. The farmers' associations are chiefly concerned with farm improvement. Membership is limited to tillers of the soil and those engaged in agricultural industries.

The associations may establish granaries, issue mortgage or credit loans, run schools for illiterate members and their children and engage in any enterprises necessary to the welfare of the farmers.

By tillers of the soil are meant both landowners and tenants. According to a survey made by the National Agricultural Research Bureau in 1940, 37 per cent of the farmers in 15 interior provinces were independent owners of their land while another 27 per cent owned part of the land they cultivated. The remaining 36 per cent were tenants.

In the province, the agricultural new deal has been effected by the provincial agricultural improvement institutes. Most of them, working under the direction of the Ministry of Agriculture and Forestry, were established shortly before or after the outbreak of war.

#### SZECHWAN'S IMPROVEMENT INSTITUTE

The accomplishments of the Szechwan Provincial Agricultural Improvement institute during the period 1937-40 has been considerable. The institute's work is best reflected in the figures of Szechwan's principal crops, livestock and export products for 1940.

They include 143,331,000 piculs of rice valued at \$6,951,554,000, 26,055,000 piculs of wheat valued at \$1,122,971,000, 13,438,000 piculs of barley valued at \$491,831,000, 26,080,000 piculs of corn valued at \$1,236,192,000, 51,208,000 piculs of sweet potatoes valued at \$686,187,000, 49,410,000 piculs of other cereals valued at \$2,262,978,000, 10,928,000 piculs of rape seeds valued at \$523,451,000, 410,000 piculs of cotton valued at \$213,200,000, 3,000,000 piculs of sugarcane valued at \$315,000,000, 1,425,000 piculs of tobacco valued at \$237,263,000, 11,738,000 hogs valued at \$2,021,284,000, 2,767,000 water buffalos valued at \$1,441,601,000, 986,000 oxen valued at \$380,596,000, 3,427,000 goats valued at \$171,350,000, 1,234,000 sheep valued at \$61,700,000, 18,000 piculs of spring rearing silk valued at \$90,000,000, 3,000 piculs of autumn rearing silk valued at \$21,000,000, 1,050,000 piculs of wood oil valued at \$198,660,000, 18,000 piculs of hog bristles valued at \$9,270,000, 2,500,000 pieces of goatskin valued at \$5,250,000 and 302,000 piculs of wool valued at \$7,680,000.

The production of 10,928,000 piculs of rape seeds in 1940 was the result of an extensive campaign conducted by the institute in 1939. The campaign to grow more rape was

launched in view of the importance of rape to China's wartime economy. Rape seeds yield an oil which after cracking serves as substitute for gasoline. As a result of this campaign, rape ranked second in the winter crop acreage in Szechwan. It was grown on 12,552,000 *mow* or 15 per cent of the total acreage of winter crops in the province. Wheat occupied the first place with 15,162,000 *mow* or 18.1 per cent. Other winter crops include 9,841,000 *mow* of barley, 9,115,000 *mow* of peas, 8,751,000 *mow* of beans.

Sericultural promotion in Szechwan is one of the institute's leading activities. Part of the 1940 silk production in Szechwan was obtained from 300,000 sheets of spring brood improved silkworm eggs and 400,000 sheets of autumn brood improved eggs distributed by the institute. Such eggs were produced in a factory in Nanchung which can turn out 15,000 sheets of eggs each year. Another factory has just been established in Chengtu with a similar capacity. Paralleling the extension of improved eggs has been the promotion of improved mulberry trees. In 1940, 600,000 trees were grafted and 6,000,000 planted, occupying an area of 3,290 *mow*. The institute has mulberry orchards at Nanchung, Santai, Hsulin, Loshan, Chingyen, Wanhhsien, Tahsien, Menyung, Hochwan and Langchung. Silk production from both spring and autumn rearings in 1941 is expected to increase to 25,000 piculs, 4,000 piculs more than in 1940.

Other activities of the institute are propagation of improved cotton varieties, promotion of animal husbandry, improving *tung* oil and tobacco, afforestation, agricultural chemistry, land reclamation, horticulture and agricultural economics.

The Szechwan Provincial Agricultural Improvement Institute was organized early in 1938 by 30 experts headed by Dr. Chao Lien-fang, a Tsinghua University graduate holding the degrees of B.S. in agriculture from the Iowa State College and Ph.D. from Wisconsin University of the United States, who later became the institute's director. Today, the institute has a staff of 300 workers trained in agriculture and related sciences. It maintains experiment stations and 72 county agents who advise the farmers on modern farming. Its field workers number 1,200 men, 80 per cent. of whom are graduates of agricultural colleges in China or abroad.

## IN OTHER PROVINCES

Agricultural improvement in other provinces may be shown in figures. In Chekiang, *tung* tree acreage in 1939 was extended by 10,800 *mow*; 27,383 catties of selected seeds were distributed to 1,139 peasants engaged in growing *tung* trees; 140,349 piculs of *tung* oil were purchased by government agents from Chekiang in 1938, 212,133 piculs in 1939 and 41,909 piculs in the first four months of 1940. Of tea 280,000 piculs were purchased by government agents in 1938 and 233,000 piculs in 1939, in addition to 69,000 piculs shipped out of Chekiang either for domestic consumption or for repacking before export. Cocoons produced were 18,907 piculs in 1938 and 63,405 piculs in 1939.

In Kiangsi, 2,800 refugee farmers registered with the land reclamation office and 12,000 *mow* of arable wasteland cultivated in 1940. There are four agricultural stations for rice, cotton, wheat, tea and tobacco; four horticultural stations for fruits; eight nurseries supplying 15,000,000 young trees each year; two silk improvement stations studying silkworms fed on wild mulberry leaves; seven animal husbandry stations raising improved cattle, hogs, fowls, carrier pigeons and bees; a serum factory; nine veterinary stations; four schools for veterinary science, agriculture, forestry, animal husbandry and rural extension work; 11 extension stations and a sugar cane station. An ambitious three-year plan has just been begun in southern Kiangsi. By the end of 1943, southern Kiangsi is to have 314 agricultural experiment stations, 2,995 model farms, 27,362 *mow* of newly reclaimed land, 3,420,125 *mow* for winter plowing, an annual cotton production of 1,000,000 piculs, 1,678 rural cooperatives, 11 farmers' model villages, 3,283 afforestation stations with 2,495,000 trees and 2,590 *mow* of seedlings and 460 *mow* of fruit trees.

In Kwangtung, \$920,000 was loaned by the Kwangtung Provincial Bank to farmers for the purchase of fertilizers, seeds and farming implements to intensify the winter crop campaign in 1940; agricultural extension stations have been set up in 56 counties from which farmers can get information and advice about improved seeds, scientific farming, better manure and insect control.

In Kwangsi, a \$8,450,000 agricultural program aiming at an increase of 2,000,000 piculs in the production of cereals has been launched in 1941. Promotion of scientific agriculture was

begun in 1937. During the first half of the year efforts were given to research and experiments; propagation and extension work commenced in the latter half when an agricultural administration bureau was established under the Kwangsi provincial government. The bureau consists of five departments—agriculture and forestry, animal husbandry, agricultural economics, land reclamation and farm irrigation. The bureau is now affiliated with the Reconstruction Commission of the Kwangsi provincial government with the reconstruction commissioner, Mr. Chen Hsiung, acting concurrently as director.

In Hupeh, a fourfold program calling for the improvement of crops and the manufacture of fertilizers, cultivation of *tung* trees, increase of cotton crop and reclamation of wasteland has been launched in 1941. It is hoped that this program will make the province self-sufficient by the end of this year.

In Hunan, the "province of rice," a survey in the autumn of 1938 resulted in the discovery of 1,320,000 *mow* of cultivable but as yet uncultivated land in 44 counties. Up to the present, 33,000 *mow* have been developed in two lots. The first lot of 20,100 *mow* yields an annual rice crop of 100,000 piculs. Some 420,000 *mow* of grassland are to be used for livestock. To increase rice production, 420,000 *mow* of farmland formerly planted with glutinous rice were converted into ordinary rice fields in 1939, increasing production by 2,200,000 piculs. An additional 432,000 *mow* were similarly converted in 1940. The increase has also been sought through the propagation of fine quality rice varieties. In 1939, 5,400 piculs of selected seeds were distributed for 109,800 *mow* of land and in 1940, 9,900 piculs for 139,800 *mow*. Similar efforts are directed towards increasing and improving cotton, *tung* oil and tea.

In Kweichow, 1939 winter crops in nine counties included 399,374 *mow* of wheat, 360,660 *mow* of rape and 291,691 *mow* of other cereals; 45,700 catties of improved American and Chinese cotton seeds were distributed that year to farmers in 13 counties resulting in an increased yield of 5,000 piculs of raw cotton worth \$750,000.

In Yunnan, considerable emphasis has been laid on land reclamation. A piece of wasteland extending over 80,000 *mow* between Kaiyuan and Mengtze has been turned into fertile fields. If all arable wasteland in Yunnan is reclaimed, 20,000,000 or 30,000,000 people can be settled. The cultivated acreage in the province measures only 35,800,000 *mow* while

mountains and wasteland take up 1,280,000 *mow*. Much of the latter is used for afforestation. According to available figures, 44,700,000 trees were planted in 45 counties and 1,370,000 trees on graveyards in 1940. These trees included *tung* trees, mulberry, quinine and camphor.

Many achievements go to the credit of the provincial agriculture improvement institutes. Some of them were established before the war. The Kiangsi Provincial Agricultural Improvement Institute, for instance, was organized in 1934. In other provinces scientific agriculture is promoted by the provincial reconstruction commission.

#### UNIVERSITY OF NANKING

No survey of China's agriculture would be complete without a word about the College of Agriculture and Forestry of the University of Nanking. Founded in 1913 by the late Mr. Joseph Baillie, American missionary, this institution has to date graduated 1,500 students or more than one-third of the graduates of all agricultural colleges in China. The college operates 30 experimental agricultural stations.

The wheat selection No. 2905 developed by the College has won nation-wide popularity. It is propagated not only by the college but also by the National Agricultural Research Bureau, the National Agricultural Production Promotion Commission and the Szechwan Provincial Agricultural Improvement Institute. Crop reports received by the college in 1939 showed that in five Szechwan counties, the production of this wheat selection was 29.30 per cent higher than that of the local strains. In four other counties it was 2.38 per cent higher. The best result was obtained in Lokiang where the production was 46 per cent higher. The selection has become so popular among the Szechwan farmers that many of them are willing to offer three catties of the local wheat in exchange for one catty of the selected strain.

Mention should also be made of the accomplishments of Dr. Frank Dickinson, professor of agriculture of the West China Union University in Chengtu. In the propagation of imported fruit trees, cattle and poultry he has made a distinct contribution.

Thanks to Dr. Dickinson, such foreign fruits as the Duncan grape fruit, the Alberta peach from Canada, the Washington Navel seedless orange, and the Eureka lemon of California can now be found in Szechwan orchards.



Dr. Dickinson introduced his first seeds in 1922. Two more shipments were ordered in 1924 and 1928. In 1932 he brought 58 trees from America and Canada among which were 29 varieties of citrus. Experiments were first conducted in the courtyard of his house on the University campus. To this orchard have come many visitors who take with them saplings, stems and branches out of which grow the new trees elsewhere in Szechwan.

Along with the imported fruits, Dr. Dickinson has also introduced better livestock. Seventeen years ago, he brought the first Holstein Bull of pure Netherlands origin to Chengtu. Today, its offspring are to be found in West and Southwest China. Recently, the professor has shifted his attention from dairy cows to dairy goats, using two pure bred dairy goat billies flown from Hongkong to Chengtu.

While commemorating the fourth anniversary of the outbreak of war, agricultural China is more confident than ever of her final victory. Her good earth will not fail Her!

#### 4. RURAL ECONOMY REVITALIZED

Before the war, the small farmers lived almost literally from hand to mouth. At sowing time they needed money for seed, replenishing implements, hiring help and sundry matters. They could look for financial assistance only to professional money lenders who granted short-term loans at exorbitant rates of interest. After harvest time, when prices were low and the loan fell due, the debtors had to sell their crops in a hurry in order to repay the usurers. As a result, they had little left for themselves, and that little could not last long. They had to plunge into debt again and went through the same process once more, the only difference being that their debts increased.

The causes for this deplorable state are easy to trace. The principal ones were the absence of adequate rural financing organs and good marketing systems for agricultural products. The Ministry of Industry endeavored to supply these needs in prewar days.

At that time, the efforts of the ministry centered on the coastal provinces. Progress was slow. After the war started, the rural credit work was taken over by the Agricultural Credit Administration of the Ministry of Economic Affairs. Efforts have been redoubled, and the activities of the administration have spread rapidly in the interior provinces. Since its reorganization in October, 1940, the rural finance work of the administration has been transferred to the Farmers Bank of China which has been outstanding in its efforts to bring prosperity to farm communities in China.

#### \$209,502,167 LOANED TO FARMERS

The highest organization in rural financing is the Joint Control Board of the Four Government Banks. According to its Rural Finance Department, total rural credits outstanding

in Free China amounted to \$209,502,167 at the end of 1940. This figure does not represent the aggregate sum of loans extended to the farmers during 1940, as credits repaid before the end of last year have not been included. Excluded also are farm loans already negotiated but not handed over by the banks at the end of 1940. The aggregate amount of money loaned to farmers in Free China between June, 1939, and February, 1940, was given by the same source at \$151,324,-481.46.

Of the \$209,502,167 rural credits outstanding at the end of last year, \$80,746,385 were extended in Szechwan province, \$18,306,342 in Hunan, \$14,223,589 in Kweichow, \$13,151,783 in Shensi and \$12,578,797 in Kwangsi. With the exception of Shensi province, financing of rural communities has been done chiefly in the southwestern provinces. The five provinces of Szechwan, Kweichow, Kwangsi, Yunnan and Hunan received \$133,729,146 or 63.83 per cent of the total loans. Suiyuan in the Northwest got only \$57,000, while the farmers of Shansi and Ninghsia borrowed \$202,000 and \$406,000. In addition to the twenty-one provinces listed in the following table, the Szechwan-Kweichow-Shensi-Hunan border area received rural loans amounting to \$5,000,000 by the end of 1940.

Of the total rural credits outstanding at the end of 1940, \$96,741,000 (46.18 per cent) were extended by the Farmers Bank of China, \$51,350,000 (24.51 per cent) by the Bank of China, and \$37,855,382 (18.07 per cent) by the Agricultural Credit Administration. The Bank of Communications extended \$12,579,785 (six per cent) and the Central Trust \$10,976,000 (5.24 per cent) of the loans to farmers in China.

Rural rehabilitation in the form of increasing foodstuffs and promoting land reclamation and handicrafts forms the major purpose of government credits for 1941. Farming communities are to be lent \$400,000,000. Several big loans, including \$136,000,000 for Szechwan and \$30,000,000 for Shensi, have been arranged.

The extension of rural credits in 1941, except with a few modifications, follows the general principles set in 1940. The four government banks continue their program of financing the rural communities either jointly or individually. The extension of credits to areas with special geographical or other conditions is carried out jointly by the banks or their branches and agents. Credits in all other places are given individually by the banks in accordance with a general plan.

# RURAL CREDITS EXTENDED BY FOUR GOVERNMENT BANKS & AGRICULTURAL CREDIT ADMINISTRATION AT THE END OF 1940 (In Chinese National Dollars)

Province	Central Trust	Bank of China	Bank of Communications	Farmers Bank	A.C.A.*	Total	Per Cent
Szechwan	5,150,000	20,893,000	6,841,709	31,424,000	16,377,676	80,746,385	38.54
Sikang	—	—	—	847,000	—	847,000	0.40
Kweichow	650,000	281,000	40,000	7,527,000	5,725,589	14,223,589	6.79
Kwangsi	131,000	3,280,000	574,999	2,680,000	5,912,798	12,578,797	6.00
Ningsia	30,000	100,000	30,000	246,000	—	406,000	0.19
Yunnan	—	4,052,000	8,152	3,235,000	578,881	7,874,033	3.76
Hunan	—	7,890,000	1,322,600	4,894,000	4,199,742	18,306,342	8.74
Kiangsi	15,000	1,320,000	103,600	8,668,000	1,278,840	11,385,440	5.43
Kwangtung	—	218,000	118,444	268,000	—	604,444	0.29
Chekang	—	2,030,000	647,041	2,196,000	—	4,873,041	2.33
Honan	—	1,252,000	—	2,610,000	713,531	4,575,531	2.18
Shensi	—	650,000	1,924,093	8,803,000	1,774,690	13,151,783	6.28
Kansu	—	1,440,000	—	8,271,000	—	9,711,000	4.64
Kiangsu	—	1,628,000	83,545	250,000	—	1,961,545	0.94
Anhui	—	1,223,000	—	7,216,000	—	8,439,000	4.03
Hopei	—	1,414,000	—	—	—	1,414,000	0.68
Suiyuan	—	57,000	—	—	—	57,000	0.03
Shantung	—	3,226,000	—	—	—	3,226,000	1.54
Hupen	—	—	220,000	6,352,000	1,293,635	8,061,635	3.85
Fukien	—	196,000	—	1,192,000	—	1,192,000	0.57
Shansi	—	200,000	—	2,000	—	202,000	0.10
Other provinces	—	—	665,602	—	—	665,602	0.32
Szechwan-Kweichow-	—	—	—	—	—	—	—
Shensi-	—	—	—	—	—	—	—
Hunan Area	5,000,000	—	—	—	—	5,000,000	2.39
TOTAL	10,976,000	51,350,000	12,579,785	96,741,000	37,855,382	209,502,167	100.00
PER CENT	5.24	24.51	6.00	46.18	18.07	100.00	—

\* Agricultural Credit Administration. Its figures represent loans outstanding at the end of October, 1940, after which date the department of rural credit extension was transferred to the Farmers Bank of China.

The administration of rural loans in 1941 emphasizes the increase of crops and the promotion of land reclamation, irrigation, handicraft and home industry. In areas near war zones stress is laid on self-sufficiency of food supplies and on assistance to organizations bearing on the production and marketing of farm products. Credits in recovered territories aim at supporting rural rehabilitation enterprises. Loans arranged last year between the Rural Finance Department and the provincial governments are still valid this year. Their totals may be increased or decreased according to requirements. The Farmers Bank of China is responsible for 45 per cent of the total amount of loans to be extended to farmers in 1941, the Bank of China for 25 per cent, the Central Trust and the Bank of Communications each for 15 per cent.

In granting credits, the department emphasizes direct assistance to farmers' associations and groups helpful to the progress of cooperatives in the particular districts. It plans to assist in the establishment of *hsien* cooperative treasuries to put the foundation of rural financing on a cooperative basis. The branches and agents of the department are also instructed to cooperate in the promotion of savings campaigns among the farmers, in addition to their rural extension work.

Loans are to be as equably distributed as possible. Amounts granted will depend largely on the actual needs of the farmers. The borrowing is to be simplified, with special attention to the seasonal needs of the peasants. Loans are classified into those related to production, irrigation, rural supplementary industries, promotion methods, implements and transportation, for the purchase of land and paying off of mortgages.

#### RURAL COOP BANKS

The basic rural finance organizations are the rural cooperative banks and the granaries. The former loan money on personal credit, while the latter are operated on a mortgage basis, undertaking at the same time the marketing of agricultural produce. These two types of financing institutions are complementary to each other. They serve to protect the interests of the farming population by providing loans and storage places at low interest, at the same time providing marketing facilities. Both types were formerly under the Agricultural Credit Administration, but are now under the Rural Finance Department of the Joint Control Board of the Four Government Banks.

In addition to granting loans, the rural cooperative banks have started rural remittance and savings offices in villages. They try to take over mortgages and to operate granaries.

Granaries provide a temporary storage place and marketing facilities for farm products. Farmers are granted low interest loans with the farm produce as security.

Some large granaries had been established before the war started. Many of them had to be abandoned when the coastal provinces fell under the control of the Japanese. The demand for granaries has increased, especially in places far removed from the war front such as Szechwan, Kwangsi and Hunan. It is planned to establish a chain of large granaries in these provinces near their production centers. Production loans are granted for the development of irrigation and drainage, the increase of agricultural production, and the improvement and extension of farms producing industrial raw materials.

The economic conditions of the farmers in Free China were recently exhaustively studied by the National Agricultural Research Bureau of the Ministry of Agriculture and Forestry.

Analyzing Free China's rural economy, the survey made by the bureau indicates that half of the farmers borrowed money, while 35 per cent borrowed grain. About 39 per cent of their loans came from private sources, 27 per cent from cooperatives, the rest from shops, banks, pawnshops and native banks. Most of the debts were secured either by guarantors or mortgages on land, livestock and farm implements. The interest charged by the credit cooperatives, which averaged 1.2 per cent, was the lowest rate paid by the farmers. Sixty-five per cent of the farmers' debts were contracted for a period of a year, 16 per cent were for six months and only a few per cent for three or nine months. In borrowing grain, the mortgaging of seedlings was the most common practice in rural communities. Interest on borrowed grain usually was 26 per cent for three months and 41 per cent for six months. The extension of rural cooperatives has gradually done away with this usurious practice on the part of money and grain lenders.

In their supplementary occupations, 61 per cent of the farmers in interior China in 1940 raised cattle, representing an increase of 7 per cent over 1939. Next in importance were growing vegetables and cutting firewood, followed by weaving and spinning, small trades and rearing silkworms. The survey also showed that during the year the farmers devoted leisure

time during eight months to animal husbandry, but only one to four months to other supplementary occupations.

According to the bureau's latest statistical returns from fifteen out of 86 places in fourteen provinces in interior China, the purchasing power of farmers, based upon their income and expenditures over a period of eight years, only shows a mild decrease in most rural communities in Free China since the war began. The purchasing power of the farmers in Kweichow, Hunan, Kiangsi and Fukien provinces represented a general increase between 1933 and 1937, according to the statistics. Others showed both increases and decreases during that period.

With 1937 as the basic year, the farmers' purchasing power in Yunnan from 1938 on showed some increase although that in other provinces was marked by a general decrease. In 1940, only farmers in Yunnan and Kweichow enjoyed higher purchasing power over previous years. The purchasing power of farmers in Ninghsia, Chinghai, Kansu, Hupeh, Hunan and Kwangtung was lower in 1940, while that in Shensi, Szechwan and Kiangsi was steady. The purchasing ability of Sikang and Fukien farmers was marked by both increases and decreases. In a few places the farmers are not as adversely affected as people in the large cities.

### RURAL COOPERATIVES

The cooperative movement has had a phenomenal development in the rural areas during the past decade. More stress has been laid on quality recently, but the number of registered societies has continued to mount. Its development in the war has even exceeded that of the prewar days, both quantitatively and qualitatively. This is not only true in the interior provinces, but also in various war areas. Up to the end of 1940, a total of 146,297 rural cooperative societies were registered with the central authorities with an aggregate of 7,582,107 members. These societies include over 30,000 preparatory societies, wartime cooperatives, and registered but not fully organized units. The number and types of cooperative societies have been increasing steadily since 1937. From before the war to the end of 1940 the societies trebled in number. Besides those in the Chungking municipality, cooperative societies, the overwhelming majority of which are credit coops, are scattered over the sixteen provinces of Chekiang, Anhwei, Kiangsi, Hunan, Hupeh, Szechwan, Sikang, Honan, Kansu, Fukien,

Kwangsi, Kweichow, Yunnan, Shensi, Kwangtung and Ninghsia. There were 89,999 credit societies in existence last December, or eighty-seven per cent of the 103,444 full-fledged cooperatives. Other cooperative units include 9,085 producers' (8.78 per cent), 2,027 transportation and selling (1.96 per cent), 1,461 consumers' (1.41 per cent), 473 supply, 349 public utilities, six insurance and 44 unclassified.

Szechwan has the largest number of cooperatives, having altogether (excluding Chungking) 24,146 societies, or 18.08 per cent of the national total. Distribution of the coops, according to the nature of the units, is:—20,073 credit coops, 426 producers', 61 consumers', 14 supplies, 12 transportation and selling, and four public utilities. Including members of preparatory and temporarily registered units, Szechwan's total number of coop members at the end of 1940 was 1,381,813, or 19.30 per cent of the total of 7,582,107 members in the 17 regions.

Of the outstanding credits to rural cooperatives on December 31, 1940, the largest share—\$40,178,519.58 of the total \$155,588,664.20—was in Szechwan province. These credits form part of the general rural credits. The organizations which extended the loans and the amounts are given as: cooperative treasuries, \$34,042,465.59; the Bank of China, \$29,007,829.38; provincial banks, \$23,367,879.05; the Farmers Bank of China, \$20,114,135.81; Agricultural Credit Administration, \$17,274,832.85; provincial administrative offices, \$695,621.86; and \$1,496,234.26 from special cooperative funds. The balance of nearly 30 million dollars came from other sources including banks, the Chinese Industrial Cooperatives, and provincial reconstruction departments.

Outstanding credits to rural cooperatives in the 17 regions are distributed as follows:

Szechwan	..	..	..	..	\$ 40,178,519.58
Hunan	..	..	..	..	14,207,971.90
Kiangsi	..	..	..	..	14,203,967.40
Kwangsi	..	..	..	..	13,834,168.00
Kwangtung	..	..	..	..	11,558,168.05
Kweichow	..	..	..	..	9,662,482.75
Kansu	..	..	..	..	8,545,952.61
Yunnan	..	..	..	..	8,125,811.70
Hupei	..	..	..	..	7,607,482.19
Shensi	..	..	..	..	7,406,139.00



Anhwei	..	..	..	..	6,584,419.96
Fukien	..	..	..	..	5,269,606.89
Honan	..	..	..	..	3,183,332.10
Chekiang	..	..	..	..	3,123,838.46
Sikang	..	..	..	..	1,180,661.78
Chungking	..	..	..	..	670,271.83
Ninghsia	..	..	..	..	245,870.00
Total	..	..	..	..	\$155,588,664.20

The increase in the number of cooperatives during the past ten years has been both rapid and steady considering the fact that such enterprises are relatively new in this country. In 1931, for instance, there were only 2,796 societies with 56,433 members. Five years later, in 1936, the numbers rose to 37,318 units and 1,643,670 members. Since the war, the government has been emphasizing the nationwide development of different types of cooperatives, realizing that the cooperative system is well adapted to Chinese conditions, particularly in wartime.

The National Cooperative Administration, recently transferred from the Ministry of Economic Affairs to the Ministry of Social Welfare, was established in May, 1939, to strengthen cooperatives as the basis of a healthy, solid national economy. In addition to supervising cooperative enterprises, the administration sponsors cooperative work in war areas or places near war areas, subsidizes local cooperative organizations, organizes all classes of coops, manages a national cooperative supply and selling depot, inspects the work of all units, sponsors coop experiments and trains coop workers. From December, 1939, to December, 1940, five regular training classes and two special classes were held, 617 completing the courses. Those trained are mostly high school graduates. More than 100 of them have either graduated from or studied in universities.

Establishment of a national cooperative supply and selling depot, with its main office in the wartime capital, was approved by Generalissimo Chiang Kai-shek who authorized capitalization of \$5,000,000 to be granted by the Joint Control Board of the Four Government Banks. The central depot was opened in Chungking on February 15. To reduce the cost of cooperative products to be sold at the depot, purchasing agents have been sent to Chekiang, Kiangsi, Hunan, Kwangsi and other places where the general price level remains lower than in some of the larger cities.

The rapid progress of the Chinese cooperative movement and the growth of other kinds of societies in addition to the credit ones are due to a number of factors. First, cooperative theories agree closely with the doctrines of the Kuomintang as taught by Dr. Sun Yat-sen, Father of the Chinese Republic. The Principle of People's Livelihood can best be realized through development of the cooperative movement.

In the second place, promotion of this movement has become, since 1929, a definite policy of the National Government. Special offices have been established in the central, provincial and local governments. Efforts made by these offices in the registration and organization of mutual benefit groups account to a great extent for the steady progress.

Third, the universal need for rural rehabilitation, the steady growth of the idea of self-government, and general improvement of educational and cultural standards cannot fail to impress upon the people how much more they can accomplish through mutual help by organizing themselves into these societies.

Fourth, the new policy of the various banks in giving more attention to rural communities has contributed much toward its growth. Not only the various provincial farmers' banks and the Farmers Bank of China, which are organized especially for rural investment, have considered rural investment through cooperative organs a sound practice, but also the ordinary banks.

One must not fail to mention the part played by two organizations—the China Cooperators' Union and the Chinese Industrial Cooperatives. The former was organized in 1928 by the followers of the late Professor Sien-chou Hsieh, generally known as "Father of the Chinese Cooperative Movement." The union devotes itself mostly to education and the popularization of the movement, while the latter is an outgrowth of the war for the special purpose of making up for the losses of Chinese modern industrial organizations in the war areas and in the hinterland.

On the other hand, one must not overlook the fact that the Chinese cooperative movement has a history of only about 20 years. In spite of its great numerical progress in recent years, the growth has not been without defects resulting from over-expansion.

To improve the present situation, the National Government established on May 29, 1939, the National Cooperative Administration. During its two years of existence, the administration has devoted itself to the readjustment of the

system. On April 3, 1941, a national conference of 150 delegates, representing 16 provincial and one municipal cooperative offices, was held in Chungking. The representatives made reports on cooperative work in their districts and discussed plans for future development as well as nationwide coordination under the guidance of the Ministry of Social Welfare.

The development of the movement in China has another special feature. It is a useful means for the realization of the Three People's Principles. Besides, it is the policy of the Central Government to have a nationwide planned cooperative movement, for the development of different classes of societies, each in close coordination with the work of its corresponding government office. The system of cooperative banking is also being improved. It is realized that a unified cooperative banking system, with enough government funds for the financing of the societies, will ensure a healthy growth of the movement.

In many respects, China offers a more fertile land for a national and planned development of the cooperative movement than any other nation. The cooperative movement in China is for the establishment of an ideal economic order. It is toward this end that the Chinese cooperative movement will strive, through designing a special system, based on general cooperative principles, but suitable to local conditions in China.

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## 5. PRODUCTS FOR FOREIGN MARKETS

On the whole, China's foreign trade has not been too greatly impaired by the war with Japan, which has already lasted for four years. Both imports and exports have been remarkably well maintained after the brief but serious depression during the initial period of the conflict. By virtue of the newly developed international lines of transportation in the Northwest and the Southwest and the timely formulation of sound foreign trade policies, Free China has been able to maintain her trade relations with friendly powers.

During the war, China's trade relations with different countries were impeded in varying degrees. Immediately after the outbreak of hostilities, imports from and exports to practically all countries slumped, the decrease in the trade with Japan being phenomenal. The decline in imports was much more pronounced than the drop in exports. While import surpluses were registered in six out of the seven months immediately preceding the war, export surpluses were realized in every remaining month after September in that year.

Taking all things into consideration, the volume of trade in 1938 was smaller than that in 1937. But in terms of monthly averages, the trade showed some improvement over the five-month period immediately following the commencement of the war. As the increase of trade in 1938 was largely due to increased imports, an import surplus of \$123,000,000 was registered for the year. Total import and export values of 1938 were \$886,000,000 and \$763,000,000, respectively.

The total value of trade in 1939 amounted to \$2,360,000,000, registering an increase of 46 per cent over the 1938 total of \$1,649,000,000, and of 32 per cent over the 1937 total of

\$1,792,000,000. Exports of the year advanced to \$1,027,000,000 while imports, making a big jump, rose to \$1,334,000,000. The 1939 import surplus was as much as \$306,000,000, showing a marked increase over the surplus of \$124,000,000 in 1938 and of \$115,000,000 in 1937.

Since July, 1939, the trend of trade has turned in favor of China. Excess of exports over imports in November, 1939, was more than \$49,000,000, which broke all previous records of export surplus.

During 1940, according to statistics released by the Chinese Maritime Customs, Free China ports registered a favorable balance of trade of \$79,975,000, imports being \$57,209,000 as against \$137,184,000 in exports. For China as a whole, the 1940 trade was unfavorable to the amount of \$68,294,000. Compared with 1939, the 1940 trade of Free China was much larger and so was the surplus of exports over imports which in 1939 was \$28,550,000. (In 1939, Free China's imports were \$42,033,000 and exports \$60,583,000.)

China's trade in 1940 registered a spectacular increase from the 1939 total of \$2,373,377,000 to the 1940 new high of \$4,020,436,000. Of the \$4,020,436,000 foreign trade, \$2,044,365,000 were imports and \$1,976,071,000 exports, creating an unfavorable balance of \$68,294,000. This represents an improvement over the 1939 deficit which amounted to no less than \$312,659,000.

#### NEW TREND IN FOREIGN TRADE

A new page has been written in the history of Chinese trade with foreign countries. This has been brought about by the war and the Japanese blockade which made it necessary for Chinese merchants to seek government help in their dealings, thus indirectly strengthening the Chinese state control over her foreign trade. Since the war, the compradore system, which formed the greatest hindrance in the development of Chinese foreign trade, has been definitely losing ground.

The feasibility of state control over China's foreign trade can be seen from trade reports since the war. Up to last August, Chinese trade with the United States has more than doubled, that with Hongkong doubled, that with Indo-China quintupled (trade with Indo-China has slumped since the trade route through Indo-China was cut last year following French capitulation), and that with the U.S.S.R. increased to

\$50,000,000 a year. Such a sharp climb in the volume of trade is largely due to increase of exports from Free China.

Most of the goods for the United States are to repay loans, while products for the U.S.S.R. are to meet barter obligations, and those for Hongkong and Indo-China (now shifted to Burma) are for re-exportation to European and American ports.

#### FOREIGN TRADE COMMISSION

Most of the foreign trade is now entrusted to the Foreign Trade Commission, formerly the Foreign Trade Adjustment Commission of Shanghai and Hankow, which was placed directly under the Ministry of Finance in February, 1938. In three years, the commission has laid a firm foundation of China's foreign trade, nationalized the commerce with foreign countries, encouraged the production of export articles, and fulfilled all of China's foreign loan obligations.

The establishment of the Foreign Trade Commission meant the setting up of a powerful purchasing and transport organization to deal with export matters, besides cultivating many contacts in international commerce. The function of this organization differs from that of the former Bureau of Foreign Trade in that the Foreign Trade Commission not only guides the activities of exporters but also participates directly in the more important branches of foreign trade. It further differs from the former trade adjustment commission in that the commission does not seek to aid the transportation and distribution of Chinese manufactured goods for domestic consumption but limits its activities to the control and operation of foreign trade.

Since its formation in 1937 until May, 1940, the Foreign Trade Commission and its predecessor had spent \$130,000,000 on the purchase of exportable products. Part of such products was sold to foreign importers while US\$30,000,000 worth was used to meet China's obligations from barter agreements with the United States and the Soviet Union.

The commission last summer mapped out a five-year plan to increase the nation's export products, such as wood oil, tea, silk, wool, seeds, and handicraft goods. The purpose of this plan, according to Tsou Ping-wen, deputy-chairman of the commission, is to assure foreign buyers an abundant supply of high quality goods at stable prices. For the first year of the plan, the commission appropriated \$6,500,000.

The 1940 allotment of \$6,500,000 was distributed as follows:

Silk .....	\$1,700,000
Wool in Northwest .....	1,800,000
Wool in West and South China ..	1,200,000
Tea .....	1,400,000
Cotton, animal husbandry, tanning and handicrafts .....	400,000

This appropriation, the first annual grant in the five-year plan, was referred to the Annual Conference of the Agricultural Association of China. It deals with seven main items (silk, tea, wood oil, animal products, cotton, seeds, and handicraft goods). Production of wood oil and tea is to be doubled while that of silk tripled.

Under the Foreign Trade Commission, which has a staff of 2,000, are three national companies—the Foo Hwa Trading Company in Hongkong and Shanghai (for hog bristles), the Fooshing Trading Company in Chungking (for wood oil), and the China National Tea Corporation. Early in the summer of this year, the commission announced its intention of merging the Foo Hwa and the Fooshing companies.

The Foreign Trade Commission has also been instrumental in helping the Ministry of Finance to exercise control over foreign exchange. The Ministry of Finance had previously ordered that all payments for Chinese exports should be made in foreign currencies, and that the foreign exchange so obtained should be sold to the Chinese government banks. To make this control effective, the commission rendered an invaluable service by requiring exporters to pledge their bills of sale to the government banks in order to secure shipping permits. From January to April, 1938, the foreign exchange thus obtained amounted to more than \$12,000,000. At the end of April, the commission was officially entrusted with the control of foreign exchange, and in July of the same year a foreign exchange department was added to the commission.

#### ANALYSIS OF MAIN EXPORT PRODUCTS

*Tea*—Between 1938 and 1940, the Chinese government invested \$100,000,000 in the interior provinces to promote the tea industry, mainly for export purposes. Of the total, \$49,000,000 were credits to tea factories and cooperatives in various provinces. The balance represented the Foreign Trade Commission's purchases of tea from the provinces by its

branches and agents throughout Free China. These sums did not include transportation and miscellaneous expenses involved in the purchasing, delivery and marketing of tea for export.

Export of Chinese tea, before the war, was mainly monopolized by foreign firms in China, with Chinese business houses serving largely in a supplementary capacity to the trade. Efforts have been made by the commission on foreign trade to remove this unfavorable practice by laying a foundation for direct trading with foreign countries. This has opened a new era in the history of Chinese tea.

With the war in China, the center of the tea export trade has been transferred from Shanghai to Hongkong. The British Crown Colony has since become the chief transit market of tea either for cash export or for the fulfilment of barter agreements. The following statistics, taken from the Chinese Maritime Customs report, show the spectacular increase in China's export of tea to Hongkong during the last few years:

Year	(1) Total Export of Tea		(2) Total Export of Tea to H.K.		Percentage between (2) & (1)
	Quantity	Value	Quantity	Value	
1936	745,686	30,661,711	58,986	1,669,479	5.45%
1937	813,144	30,787,274	83,410	2,777,392	9.22%
1938	832,492	33,054,085	478,198	17,672,659	53.47%
1939	451,156	30,385,831	236,482	18,190,761	59.96%
1940	495,468	71,815,235	388,786	48,789,613	67.93%
Jan— June					

(quantity in piculs; value in Chinese national dollars)

The most significant feature in the extension of the Chinese tea market abroad is the barter system. As tea forms the principal item in China's barter trade with the Soviet Union, its export has contributed much to the nation's power of resistance. The significant role played by tea in the barter trade in regaining China's tea market abroad can be readily seen from the impressive export figures to the U.S.S.R. in 1938 and 1939.

Owing to government control measures in the exportation of tea and the widespread extension of loans in producing areas, a boom in the tea trade was registered in the last few years except in 1939. Figures on the export of Chinese tea in the last six years are shown in the following table:



<i>Kinds of Tea Quantity &amp; Value</i>		<i>Black Tea</i>	<i>Green Tea</i>	<i>Brick Tea</i>	<i>Others</i>	<i>Total</i>
<i>Date</i>						
1935	Quantity	2,209,504	308,016	197,210	48,078	762,808
	Value	7,854,170	18,045,507	2,799,825	924,682	29,624,184
1936	Quantity	192,060	311,862	183,734	58,030	745,686
	Value	7,968,396	19,192,267	2,353,774	1,147,274	30,661,711
1937	Quantity	231,316	307,996	191,615	82,318	813,144
	Value	10,085,558	16,422,669	2,539,200	1,739,847	30,787,274
1938	Quantity	217,804	462,292	63,458	88,938	832,492
	Value	8,808,728	21,598,431	955,632	1,691,240	33,054,031
1939	Quantity	103,290	278,250	4,178	65,438	451,156
	Value	9,043,507	19,762,234	91,724	1,488,366	30,385,831
1940	Quantity	98,106	367,228	14,604	15,530	495,468
	Value	13,373,699	56,457,631	852,412	1,131,493	71,815,235
Jan.— June						

(quantity in piculs; value in Chinese national dollars)

The decrease in the export of tea in 1939 was due largely to the tightened Japanese blockade of the China coast and the objections on the part of tea merchants against imposition of control measures over the collection and marketing of what is known as "special contracted tea." Otherwise, the 1939 export figures would have been much larger, as can be seen from the larger amount of credits granted by the commission to tea factories and cooperatives and the greater production of tea in 1939 over the previous years. The small tea export in 1939 was followed by a spectacular increase in the first half of 1940.

Last December, in the third year of China's tea barter with the U.S.S.R., the China National Tea Corporation secured a new contract for 6,000,000 cases of its products, valued at approximately \$100,000,000 national currency. This contract calls for the delivery of roughly US\$5,000,000 worth of Chinese tea bricks and tea leaves to the Soviet Union during the present year.

*Bristles.*—It is estimated that by the end of 1940, a total of 5,140 quintals or 8,500 piculs (old system) of hog bristles was exported directly through the Foreign Trade Commission in a year. Of the total, 5,000 piculs (equivalent to approximately 3,024 quintals) were black bristles and 3,500 piculs (approximately 2,117 quintals) white bristles.

In 1940, the Foreign Trade Commission, which has the control over the collecting, marketing and exporting of hog bristles in China, collected and purchased 10,000 piculs (6,047.90 quintals) from several bristle-producing provinces.

The province of Szechwan leads all regions in the production of hog bristles, the annual output being 18,000 piculs or 14 per cent of the national total. Out of the 18,000 piculs 4,000 piculs are the more valuable white bristles, representing nearly half of the entire white bristle output of China.

The Foo Hwa Trading Company, subsidiary organ of the Foreign Trade Commission, is in charge of the bristle trade.

*Wood oil* occupies the first place in the exports from or through the wartime capital. In 1939, according to statistics released by the Bureau for the Inspection and Testing of Commercial Commodities of the Ministry of Economic Affairs, no less than 65,219.03 quintals of wood oil was sent out from Chungking. In 1940, an even bigger quantity (82,322.09 quintals, valued at \$7,316,878.66) of this cash product was exported from Chungking. In the first quarter of 1941, the wood oil export has already reached the 23,835 quintals mark.

Export of Chinese wood oil to the United States, according to the Economic Research Bureau of the Central Bank of China, during the last five years is as follows:

1936	.. .. .	622,867 quintals
1937	.. .. .	719,452 „
1938	.. .. .	625,199 „
1939	.. .. .	312,380 „
1940	.. .. .	254,102 „

(1940 figure not including December)

The United States is by far the biggest importer of China's valuable wood oil, which has been used to repay a part of the loans granted to China by the United States.

*Silk*—The United States has been a leading importer of China's raw silk over a number of years. In 1935 she took 24,538 bales and in 1936 she imported 18,283 bales of raw silk from Shanghai. Prior to the war, she took more than half of all silk produced in Szechwan province, which for a time yielded a maximum annual output of 30,000 piculs.

In the past two years, larger quantities of Szechwan raw silk have been sent to British Burma. The \$4,000,000 Szechwan Silk Company, a semi-official stock-holding concern engaged in sericulture, reported that while New York formerly took nearly 80 per cent of the company's yearly production, at present Rangoon is taking about 50 per cent of its entire exports, with New York taking the rest.

*Metallic Ores*—China has been supplying the United States

with tungsten, antimony and mercury, all vital requisites in the manufacture of armaments and important to heavy industries.

The US\$25,000,000 loan granted to China by the American Export-Import Bank to meet Chinese foreign exchange needs is being liquidated by the sale of tungsten to the United States. America needs more tungsten than she can produce and depends chiefly on China for making up the deficit.

#### MARKETING CENTER SHIFTS TO RANGOON

Hongkong assumed the role of China's main foreign trade outlet when the port of Shanghai, former center of Chinese international trade and commerce, fell into the hands of the Japanese late in 1937. Recently, however, Hongkong's importance to Free China's foreign trade has been steadily on the decrease since Rangoon in British Burma has become the leading outlet of Chinese exports.

Trade reports from the British Crown Colony show that during the first quarter of 1941 the total volume of Chinese foreign trade through Hongkong was less than half of the corresponding period last year. Altogether, the value of Chinese goods exported from Hongkong during the months of January to March, 1941, was HK\$11,635,393 whereas from January to March, 1940, their value reached HK\$35,858,591.

Among the exports through Hongkong in the first three months of 1941, hog bristles ranked first in value, with wood oil, silk, tea, and wolfram (tungsten) and tin ores taking second to fifth places. The combined value of these five products in the first quarter of 1941 was less than one-sixth of the same period in the previous year, namely, HK\$6,218,512 and HK\$39,802,776, respectively.

This decline of Chinese foreign trade through Hongkong is largely due to the fact that the bulk of wood oil, hog bristles, as well as Szechwan silk for the American and other foreign markets is being sent from Free China to Rangoon direct.

#### EXPORTS THROUGH CHUNGKING

As the wartime capital and meeting point of practically all important communication lines in Free China, Chungking plays a significant role in the foreign trade. Chief items of exports through Chungking are wood oil, black and white hog bristles, pig casings, silk, and animal skins.

Statistics of the chief export products from Chungking in 1939 and 1940 follow:

<i>Commodity</i>	<i>1939 (in quintals)</i>	<i>1940 (in quintals)</i>
Wood Oil .. .. .	65,219.03	82,322.09
Hog Bristles .. .. .	4,963.197	7,374.36
Pig Casings .. .. .	1,295.17	1,481.33
Salted Pig Intestines .. ..	—	—
Sheep Skins .. .. .	8,876.065	13,264.22
Yellow Native Raw Silk ..	—	821.99
White and Yellow Raw Silk	—	—
Buffalo Hides .. .. .	976.97	—
Cow Hides .. .. .	162.34	—
Rabbit Skins .. .. .	—	1,807,500 pcs.

Total value of the main export goods sent out from or through Chungking in 1940 (wood oil, bristles, pig casings, salted pig intestines, white and yellow raw silk, yellow raw native silk, sheepskins and rabbit skins) amounted to \$33,577,415.57.

During the first three months of 1941 no less than 23,835 quintals of wood oil were exported from Chungking for foreign markets. In the first quarter of the year, the average monthly export of wood oil was 7,945 quintals, or some 265 quintals daily.

Following is a comparative list of amounts of commodities exported from or through Chungking during the first quarter of 1940 and 1941, compiled from estimates released by the Bureau for the Inspection and Testing of Commercial Commodities of the Ministry of Economic Affairs:

<i>Commodity</i>	<i>Jan.-March, 1941 (in quintals)</i>	<i>Jan.-March, 1940 (in quintals)</i>
Wood Oil .. .. .	23,835.00	28,706.105
Black Hog Bristles .. ..	3,334.36	3,436.44
White Hog Bristles .. ..	110.01	—
Sheep Skins .. .. .	712.85	8,626.08
Pig Casings .. .. .	616.28	507.59
White Raw Silk .. .. .	509.99	—
Yellow Raw Silk .. .. .	67.00	—
White Native Raw Silk ..	36.03	—
Rabbit Skins .. .. .	400,000 pcs.	16,800 pcs.

## 6. INDUSCO'S RAPID GROWTH

All over Free China today, and to some extent even behind the enemy lines, are found the familiar signs of a red triangle containing two Chinese characters: *kung ho*. These signs are a symbol of a new, vital force kindled by the realization of the importance of small, decentralized industries for wartime China. They refer to the Chinese Industrial Cooperatives, a movement first launched in the fall of 1938 in Hankow under the chief sponsorship of Dr. H. H. Kung, president of the Executive Yuan and concurrently Minister of Finance.

Growth of the Chinese Industrial Cooperatives, otherwise known as the C.I.C. or *Indusco*, has been fairly rapid. On December 31, 1939, there were 1,284 cooperatives under the C.I.C. with 15,610 members, but on March 31, 1941, the number of societies had reached 1,664 with membership of 21,199. From approximately \$3,000,000 for December, 1939, monthly production rose to nearly \$12,000,000 by the end of 1940, and was estimated at the end of March, this year, at \$8,330,000.

Objectives of the Chinese Industrial Cooperatives, as outlined by the Central Headquarters of the C.I.C. in Chungking, are to assist in military and economic resistance to aggression by the production of daily necessities; to help in national reconstruction by the establishment of a sound cooperative basis for small industries scattered throughout China; and to hasten the full realization of Dr. Sun Yat-sen's Principle of People's Livelihood (one of the Three People's Principles).

These objectives were worked out when it became clear that in order to continue economic resistance against Japan, China must at all costs develop production. The plan was to construct throughout China chains of small industries using local materials to supply the manufactured goods necessary to the life of the people. The cooperative form of industry was

chosen as one which gives the workman the best chance to develop initiative, responsibility, and security. It was expected that small scale cooperative industry would help solve the problem of raw materials in the interior, and would lay the foundation for a sound industrial life, valuable both to the community and the individual.

#### FOUNDING OF C.I.C.

Work of the Chinese Industrial Cooperatives commenced in Hankow in the autumn of 1938 and the Northwest region was the first area of activity. Generous help from Madame Chiang Kai-shek enabled mill hands evacuated from Hankow to find themselves independent workers.

Dr. H. H. Kung, who once said "The Chinese Industrial Cooperatives are not merely a wartime organization. They must use this time to build up their strength so that they will be able to make the transition to a more fully mechanized state after the war," was chief sponsor of the movement. Since then he has been president of the Indusco. The active part he played in the organization of the movement shows the importance the government attaches to it. It also means the realization of Dr. Kung's long-cherished idea of "cottage industries" for China—for as far back as 1928 when he was the minister of industry and commerce he was a strong advocate of building China's light industries on a small and cooperative basis.

The development of the C.I.C., according to a report issued by the central headquarters, can be divided into three stages, namely, the planning stage, the big offensive, and consolidation. By the spring of 1938 Japanese big guns and incendiary bombs had destroyed at least 80 per cent of Chinese industries in and around Shanghai, and there were thousands of destitute, homeless people, among whom a large number of skilled workers were compelled to lie idle in refugee camps. The Japanese were preparing to apply their strategy of "keeping up the war with war" by ruthless exploitation of Chinese resources, human and material, to conquer the Chinese. The best way to meet the situation was to found flexible, decentralized, small industries, it was reasoned. Through such an industrial movement, not only could skilled Chinese workers in refugee camps be prevented from working for the Japanese but they could be induced to move into the hinterland of China to become self-conscious, self-supporting and self-respecting productive citizens to man the new economic bulwark against the Japanese invasion.

Through such a movement, too, tools and machinery could be moved into Free China from occupied or threatened areas. The more far-reaching significance, however, lay in the belief that a movement like the industrial cooperatives could do much to lay the foundation of a new industrial democracy for China both during and after war, thus hastening the complete realization of Dr. Sun's great plans for a modern China.

The organizers of the C.I.C., following their plan, have established three zones of industry. They are: 1. In the rear the heavier industries which cannot be mobile and should be far away as possible from the battle line.

2. A middle zone stretching from Kansu in the Northwest in a huge arc round the fighting line to Fukien in South China. The threat of aerial bombardment makes it necessary for the industry to be as decentralized as possible.

3. A zone of "guerilla industry" in the fighting areas and even behind Japanese lines. This industry must be very mobile so as to be able to shift around as the theater of war changes.

Following the planning stage, the "big offensive" set in, and in the course of less than a year more than 1,000 industrial cooperative societies were organized. The outstanding characteristic of this stage of development was speed—speed in rescuing machinery and other tools of production from areas threatened with imminent invasion, and speed in giving refugees, particularly skilled workers, productive employment.

The stage of consolidation calls for the reorganization or combination of many cooperatives so that they can better meet sound promising standards. In not a few cases cooperatives have been dissolved because they were found to be below par.

The number of cooperatives in a given locality may be reduced, but the size and quality of the membership as well as their efficiency is improved by consolidation. Consolidation does not mean stagnation. It must go hand in hand with expansion.

#### GROWTH OF THE C.I.C.

In the course of two and a half years, Indusco has expanded in size and become better organized. In March, 1939, there were only 246 societies; the number of cooperatives was biggest in September, 1940, when there were in existence 1,863 societies. The growth of number of cooperatives and membership was as follows:

<i>Period</i>	<i>Number of Cooperatives</i>	<i>Membership</i>
1939		
March .....	246	3,597
June .....	870	11,058
September .....	1,111	13,631
December .....	1,284	15,610
1940		
March .....	1,334	16,066
May .....	1,688	22,740
September .....	1,863	27,562
1941		
March .....	1,664	21,199

The following table gives (as of March 31, 1941) the number of depots, societies, members, share capital subscribed and paid-up, loans outstanding, and estimated monthly production figures arranged according to the C.I.C. regions:

#### SOCIETIES BY REGIONS

(March 31, 1941)

<i>Names of Regions</i>	<i>Number of Depots</i>	<i>Number of Societies</i>	<i>Number of Members</i>	<i>Share Capital Subscribed</i>	<i>Capital Paidup</i>	<i>Loans Out-Standing</i>	<i>Monthly Production Estimated</i>
Kiangsi-							
Fukien-							
Kwangtung	18	421	5,119	\$ 150,451	\$101,885	\$ 988,496	\$ 523,900
Szechwan-							
Sikang	13	385	5,872	517,014	377,369	4,508,644	2,717,700
Northwest	12	357	4,527	297,818	208,901	1,534,691	4,223,800
Hunan-							
Kwangsi	12	226	2,583	74,864	57,333	593,650	308,900
Shansi-							
Honan	6	114	1,503	70,475	68,005	189,150	180,200
Yunnan-							
Kweichow	4	99	987	51,007	37,290	219,235	284,400
Chekiang-							
Anhwei	5	62	608	18,534	10,157	209,762	89,800
TOTALS	70	1,664	21,199	\$1,180,163	\$860,940	\$8,243,628	\$8,328,700

#### TYPES OF INDUSTRY

The many types of societies under the Chinese Industrial Cooperatives can be grouped roughly into ten lines, namely, textile, chemical, sewing and clothing, mining and metallurgy, building construction, food, machinery, culture and stationery, transport, and miscellaneous. Textile societies occupy top place—out of 1,664 cooperatives on March 31, 1941, there were no less than 547, or 32.90 per cent, engaged in this line.

The distribution of the industries at the end of March, 1941, was as follows:



DISTRIBUTION OF INDUSTRIES  
(March 3, 1941)

<i>Line</i>	<i>Number of Societies</i>	<i>Percentage</i>
Textile .....	547	32.00
Chemical .....	303	18.20
Sewing and Clothing .....	196	11.80
Mining and Metallurgy .....	173	10.40
Building Construction .....	117	7.00
Food .....	105	6.30
Machinery .....	53	3.20
Culture and Stationery .....	50	3.00
Transport .....	14	0.90
Miscellaneous .....	106	6.30
Total .....	1,664	100.00

In 1940 Indusco societies produced no less than 114 kinds of goods. A list of the more important products follows:

<i>Textiles</i>	<i>Matches</i>
Cotton yarn	Ink
Cotton fabrics	Dyes
Woolen yarn	Educational supplies
Tweeds	Medicine (Chinese)
Army blankets	Medicine (Western)
Medical cotton	Alcohol (transport and medical)
Gauze	Leather tanning and working
Socks	Paper
Towels	Dry Cells
Canvas (for stretchers)	Pens
Bedding	Lubricating oil
Hemp yarn	Vaseline
Linen	<i>Clothes</i>
Burlap	Tailoring
Silk thread	Shoes
Silk fabrics	Sandals
Oiled silk	Hats
<i>Chemical</i>	Knitted good
Soap	Furs
Candles	
Tooth powder	

*Pottery, etc.*

Earthenware  
 Porcelain  
 Glass  
 Bricks  
 Tiles

*Metals*

Founding  
 Iron smelting  
 Machine work  
 Motorcar parts  
 Printing machinery  
 Printing type  
 Agricultural implements  
 Munitions  
 Engines  
 Watch repair  
 Motor repair  
 Small arms repair  
 Coppersmith  
 Tinsmith  
 Ropemaking machines

*Foodstuffs*

Oil-pressing  
 Puffed Rice  
 Preserved foods  
 Flour  
 Rice-milling  
 Biscuits  
 Tea-baking  
 Sugar refining  
 Bean curd

*Mining*

Coal  
 Iron  
 Gold

*Woodwork*

Furniture  
 Baskets  
 Toys  
 Boats  
 Carts  
 Textile machines

All over the country new spinning jennies have been introduced, and men and women taught to use them, and almost every depot has cooperatives engaged in weaving, supplying some of the immense amount of cloth sorely needed in China. The one-million-blankets-for-the-army movement has given new impetus to the wool spinning and weaving industry of the C.I.C.

Regarding Indusco mining, in five districts refugees wash gold, in another five coal is mined, and in still another five iron is mined and smelted. New techniques are being introduced—improvements of the old ones, yet making use of local resources.

C.I.C. machine-shop coops engage mainly in making spinning wheels, looms, lathes, and other machinery needed in small-scale industry. There are on the average 50 or more mechanics working in each.

The industries are not scattered at random. Before any cooperative is organized, investigations are made to insure that there are (1) raw materials near at hand, (2) skilled workmanship available, and (3) a market for the finished product. Where these three do not co-exist at one place, a compromise is effected.

The following table outlines the distribution of the industries according to C.I.C. regions:

DISTRIBUTION OF INDUSTRIES AMONG REGIONS  
(March 31, 1941)

<i>Regions</i>		<i>Number of Societies</i>	<i>Regions</i>		<i>Number of Societies</i>
					<i>B/F</i>
1. TEXTILE:					547
Kiangsi-Fukien-Kwangtung	48		Shansi-Honan	46	
Szechwan-Sikang	176		Yunnan-Kweichow	55	
Northwest	95		Chekiang-Anhwei	15	
Hunan-Kwangsi	112				
2. CHEMICAL:					303
Kiangsi-Fukien-Kwangtung	91		Shansi-Honan	17	
Szechwan-Sikang	106		Yunnan-Kweichow	11	
Northwest	45		Chekiang-Anhwei	12	
Hunan-Kwangsi	21				
3. SEWING AND CLOTHING.					196
Kiangsi-Fukien-Kwangtung	44		Shansi-Honan	25	
Szechwan-Sikang	35		Yunnan-Kweichow	11	
Northwest	39		Chekiang-Anhwei	14	
Hunan-Kwangsi	28				
4. MINING AND METALLURGY:					173
Kiangsi-Fukien-Kwangtung	49		Shansi-Honan	6	
Szechwan-Sikang	15		Hunan-Kwangsi	3	
Northwest	100				
5. BUILDING CONSTRUCTION:					117
Kiangsi-Fukien-Kwangtung	69		Shansi-Honan	1	
Szechwan-Sikang	6		Yunnan-Kweichow	5	
Northwest	22		Chekiang-Anhwei	5	
Hunan-Kwangsi	9				
6. FOOD:					105
Kiangsi-Fukien-Kwangtung	48		Shansi-Honan	9	
Szechwan-Sikang	11		Yunnan-Kweichow	4	
Northwest	20		Chekiang-Anhwei	2	
Hunan-Kwangsi	11				
7. MACHINERY:					53
Kiangsi-Fukien-Kwangtung	13		Shansi-Honan	3	
Szechwan-Sikang	14		Yunnan-Kweichow	2	
Northwest	12		Chekiang-Anhwei	3	
Hunan-Kwangsi	6				
8. CULTURE AND STATIONERY:					50
Kiangsi-Fukien-Kwangtung	18		Shansi-Honan	5	
Szechwan-Sikang	9		Yunnan-Kweichow	2	
Northwest	7		Chekiang-Anhwei	2	
Hunan-Kwangsi	7				
9. TRANSPORT:					14
Kiangsi-Fukien-Kwangtung	3		Hunan-Kweichow	8	
Northwest	3				
10. MISCELLANEOUS:					106
Kiangsi-Fukien-Kwangtung	38		Shansi-Honan	2	
Szechwan-Sikang	13		Yunnan-Kweichow	9	
Northwest	14		Chekiang-Anhwei	9	
Hunan-Kwangsi	21				
<i>Brought Forward</i>	547		<i>Total</i>		1,664

## ORGANIZATION AND PERSONNEL

The direction of the cooperatives is in the hands of the 70 depots in 16 provinces. These depots are divided among five regions, namely, the *Northwest* (Shensi, Kansu, Shansi, Hupeh and Honan), the *Southeast* (Kiangsi, Fukien, Kwangtung, Anhwei and Chekiang), the *Southwest* (Hunan, Kweichow and Kwangsi), *Chwan-Kang* (Szechwan and Sikang), and *Yunnan*. They are responsible to five Regional Headquarters located in Paochi, Kanhsien, Kweilin, Chungking and Kunming. Two new regional headquarters were established not long ago, at Kinhwa, Chekiang, and at Loyang, Honan, to take charge of front-line work.

All seven regional headquarters are responsible to the Central Headquarters of the C.I.C. at Chungking.

The main divisions of work at the Central Headquarters are: field work department—looking after organization, inspection, engineering, marketing and supply; promotion department—in charge of publicity and coordination, education and training and welfare; finance department—in charge of accounting, auditing and loans; and the secretariat department—looking after general correspondence, files, business, personnel registration and collection of statistics.

The Indusco has a staff of some 900 persons, including those at the central headquarters and in the field, most of whom are college graduates while not a few have received advanced training abroad. Many of the American returned workers were friends or pupils of that veteran missionary, Joseph Baillie, who, by his unremitting effort, made it possible for Chinese students to have years of practical work in American factories after their graduation from engineering courses.

The most active worker of the entire C.I.C. movement is short and sturdy New Zealander Rewi Alley. Mr. Alley resigned from his post as industrial inspector of the Shanghai Municipal Council to become technical adviser of the C.I.C. He makes frequent visits to the regions, inspecting and advising the societies wherever he goes.

Other advisers of the C.I.C. include the veteran British cooperator, Professor J. B. Taylor, of Yenching University, Peiping, who now works with some of his former students serving as C.I.C. depot-masters, and Drs. Lewis Smythe and Charles Riggs, American cooperative and technical specialists, who give the movement much of their time and thought.

## SOCIETY AND FEDERATION

To form a society under the Chinese Industrial Cooperatives system, at least seven persons of adequate technical skill are required. The control is democratic, officers being elected, and wages and duties fixed, by meeting of members or committees chosen by the members. A simple standard cost accounting system is used and the accounts are audited by C.I.C. representatives. Profits are divided at the end of the year according to the C.I.C. constitution, usually as follows:

Reserves .....	20-30%
Emergency or contribution to C.I.E.	10%
Bonus to staff .....	10%
Common good fund .....	10%
Dividend to members and workers	40-50%

In most factories or workshops there are seasonal hired workers and apprentices who are paid a fair wage. C.I.C. engineers give technical advice to the societies on the use and improvement of methods of production. Modern technique and machines are introduced where possible, and there is incessant effort for the improvement of quality and standardization.

The cooperatives at each depot are from time to time federated, and the federation organizes supply and marketing agencies with the help of the C.I.C. headquarters. According to the organizers, it is intended that the function now performed by the C.I.C. will gradually be taken over by the federations, which in some places already support educational and medical work among the cooperators and their families and run their own stores.

## TRAINING AND RESEARCH

Business or the economic side of the cooperatives is not the sole concern of the C.I.C. Special attention is paid to the education and welfare of the cooperative members and their families. Far from being automatons of production, the cooperative members are trained to be self-reliant and self-respecting workers having individually as well as collectively a strength all their own.

Every C.I.C. depot sponsors programs of popular education, most of them have schemes for medical care of workers, and some of them have recreation centers, schools and nurseries for the children of the workers. Technical training is also given to refugees preparatory to setting them up in cooperative workshops. For the improvement of technique and introduction of

simple modern methods, the C.I.C. itself engages in research work in textiles at Chengtu, chemical industries in the Northwest and Southeast, in addition to much minor research in every part of the country by enthusiastic technicians anxious to improve machines and processes.

For the strengthening of the organization and fuller understanding of democratic methods by the societies, training courses for organizers and coop members are constantly maintained in every region. In addition, there are also accounting classes and an institute for the training of higher staff.

More recently special training has been given to disabled soldiers so that they can be organized into cooperatives and rehabilitated by learning some kind of light industrial work.

#### FRONTLINE WORK

As far as "guerilla industry" is concerned, the Indusco is at its best in southeast Shansi where its units operate in a hit-and-run manner close to or behind enemy positions. "Stay as long as possible" is the policy adopted by the industrial cooperatives which keep their machinery busy even to the accompaniment of gunfire. Often the members have to move bag and baggage when their plants are threatened by military engagements. Only too frequently do they have to trek across hills with their equipment, raw materials and personal belongings. When there is insufficient time to dismantle the machinery and carry it away, members of these mobile industrial units do their best to conceal what they have to leave behind for the time being.

Despite heavy military activities during the spring and summer months of 1940, 36 cooperatives in southeast Shansi produced during that period more than \$1,000,000 worth of goods, three quarters of which were daily necessities for the troops. Only \$5,372 worth of coop property was lost during the year and stoppage of operation was kept to a minimum. Although a few of the societies had to suspend work for several months last year, total net profit for all societies was still more than enough to cover all losses, as available statistics show that 22 cooperatives reported a total profit of \$6,257.74 for 1940.

#### CAPITALIZATION AND FINANCES

Exactly two years after its inauguration, the Chinese Industrial Cooperatives' total capitalization was estimated to be \$10,000,000. About 35 per cent is borrowed from the govern-

ment for capital funds, with the rest mainly supplied by Chinese banks, bank loans being estimated at \$5,000,000. Recently the C.I.C. obtained from the government another grant of \$5,000,000 as capital for marketing and supply agencies. A \$20,000,000 credit has also been concluded with the Bank of China.

On March 31, 1941, loans available totalled \$15,882,764.25. Of this sum there were \$5,001,027.28 capital loans, \$506,691.97 special loans, and \$10,375,000 bank loans. Details of the loans are as follows:

**LOANS AVAILABLE**  
(March 31, 1941)

<i>Names of Regions</i>	<i>Capital Loans</i>	<i>Special Loans</i>	<i>Bank Loans</i>	<i>Totals</i>
Northwest	\$1,825,539.50	\$263,503.48	\$2,800,000.00	\$4,889,042.98
Kiangsi-Fukien-				
Kwangtung	231,187.54	110,720.17	3,450,500.00	3,791,907.71
Szechwan-Sikang	1,407,578.77		2,000,000.00	3,407,578.77
Hunan-Kwangsi	537,793.32	130,635.21	1,105,000.00	1,773,428.53
Yunnan-Kweichow	258,973.15	1,833.11	1,000,000.00	1,260,806.26
Shansi-Honan	440,000.00			440,000.00
Chekiang-Anhwei	300,000.00		20,000.00	320,000.00
<b>TOTALS</b>	<b>\$5,001,027.28</b>	<b>\$506,691.97</b>	<b>\$10,375,000.00</b>	<b>\$15,882,764.25</b>

**NOTE:**

- The distribution of bank loans among regions is as follows:

**NORTH-WEST:**

Bank of China	\$1,300,000
Chincheng Bank	500,000

Shensi Provincial Bank	500,000
Kansu Provincial Bank	500,000

**KIANGSI-FUKIEN-**

**KWANGTUNG:**

Kwangtung Provincial	
Bank	\$2,000,000
Four Banks <sup>1</sup>	1,000,000
Chekiang Provincial	
Bank	250,000
Bank of China	200,000

**SZCHWAN-SIKANG:**

Bank of China	\$2,000,000
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**HUNAN-KWANGSI:**

Bank of China	1,000,000
Hunan Provincial	
Bank	105,000

**YUNNAN-KWEICHOW:**

Bank of China	1,000,000
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**CHEKIANG-ANHWEI:**

Bank of China	20,000
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**TOTAL**      **\$10,375,000**

- A new loan of \$20,000,000, in addition to the figures tabulated above, has been contracted with, but not released by, the Bank of China.

The planned distribution among the Regions is as follows:

Szechwan-Sikang	\$5,000,000	Yunnan-Kweichow	\$1,500,000
Hunan-Kwangsi	4,500,000	Chekiang-Anhwei	1,500,000
Northwest	4,000,000	Shansi-Honan	1,000,000
Kiangsi-Fukien-			
Kwangtung	2,500,000		

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**TOTAL**      **\$20,000,000**

Indusco promotion committees function in Manila, New York, Washington, and London. The International Committee in Hongkong, an associate organization of the C.I.C., is in charge of the distribution and accounting of funds donated by foreign sympathizers.

#### A FORWARD LOOK

For a large number of the cooperative members, the C.I.C. has come to mean a new life; a new outlook and a new reliance in themselves. For some communities in which industrial cooperatives are organized, the C.I.C. has come to mean a new vitality, and the basis of a new economic and social order.

"While the C.I.C. is a product of the war, it looks beyond the war period however long it may be. The cooperatives that are already organized, and are to be started, will not terminate with the war but will continue to be an important part of the new economic structure of the New China," a C.I.C. report states. ". . . Steps are already being taken to 'rationalize' the C.I.C. industries. The 114 types of industries were started to meet the immediate needs of the respective local communities and it is foreseen that some of these industries will at best be of a temporary nature. But other industries such as textile, tannery, paper-making and alcohol-making should, with further and continued improvement in the technique of the processes in their production, be able to stand competition not only with similar goods produced in this country but with products imported from abroad. Thus every effort is being and will continue to be made in solidifying the foundation and broadening the bases of these industries so that they will become even after the war the mainstay of the C.I.C. industries around which a number of other auxiliary industries will be built." This statement summarizes concisely the future policy of the C.I.C.

Among the C.I.C.'s plans for the future is the important program of standardization and betterment of means of production. Simple standardized tools and machines, thoroughly adapted in local conditions, will be devised, experimented with, and perfected for use by the cooperatives.



## IV. WARTIME ADMINISTRATION

### 1. FOUR YEARS OF FINANCIAL EFFORT

In spite of four years of protracted warfare, China is still holding its own financially as well as militarily, much to the surprise of her foe and friends alike. A number of forward improvements have been introduced under war conditions, which point to the healthy future of China's finance.

Admittedly, the problems and difficulties confronting China's wartime finance are as enormous as they are numerous. Immediate ways and means have to be found to meet a war budget several times larger than peacetime expenditures. Heavy outlays are required for war relief purposes arising from the enormous destruction of life and property both in the front and in the rear. Still greater funds have to be provided for accelerating various reconstruction projects essential to national defense and rehabilitation. Strenuous efforts have to be made in mobilizing and coordinating the nation's currency and credit structure, especially in view of the Japanese plots to undermine it.

China's public finance has suffered severely from the seizure and destruction of its revenue sources by the Japanese. New taxation could not be expected to replace these losses at once, not only because Japan has occupied so many important cities but also because China has not yet developed a relatively productive system of direct taxation. Elasticity of tax yield is difficult to obtain even under normal conditions. Besides, due to China's low per capita wealth, the people's tax-paying capacity could not be increased overnight to meet the country's urgent great needs. Finally, lack of full jurisdiction over foreigners and in the foreign concessions and settlements has added to China's difficulties in enforcing rigid measures of

financial control such as adopted by other countries at war.

Nevertheless, the Chinese have been able to hold for four hard years and are still holding strongly their financial front. Their main objectives are to strive for the covering of costs of war and the stabilization of currency, as well as to seek economic self-sufficiency and to augment China's economic strength in face of Japanese economic blockade and aggression. The guiding principles adopted are to control public finance through executive channels, to bring about economic development with the wise employment of money, and to increase national income by economic development, thus to bring about coordinated development of personal and national productive power.

The strength in China's financial front is largely due to financial and monetary reforms undertaken before the present hostilities started. The strict enforcement of the budgetary system, changes in the collection of salt, consolidated, and other taxes, readjustment in tax scales, the introduction of direct taxes, the demarcation of national from local revenues, and the reorganization of both foreign and domestic loans, have all contributed their share toward the soundness of China's wartime financial structure. Other definite steps were taken to increase the capital of the four government banks, extend more loans for agricultural, industrial, and commercial development and to encourage thrift and savings. Of particular importance was the enforcement of the legal tender policy which gave China a modern and managed currency.

Aside from China's vast territory, large population, and rich resources, which form the main pillars for Chinese resistance and reconstruction, material assistance from friendly nations has also been of great help in the development of Free China provinces. Since the war, the National Government has concluded a number of financial agreements in the forms of credit loans and barter agreements, with the United States, Great Britain, and the U.S.S.R. The people, on the other hand, have shown unwavering confidence in the legal tender notes and government bonds. Contributions from Chinese at home and abroad also constitute a part of the National Treasury's wartime income.

The four war years may be divided into two periods insofar as financial and currency administration is concerned. No drastic changes were made in the first one and a half years. Measures for financial adjustment carried out were conservative

in nature. The Chinese currency remained stable. Ordinary government expenditures were greatly reduced to meet war, reconstruction, and relief needs. The actual outlays, however, were increased twofold as compared with pre-war days. On the other hand, as a result of the extension of war areas and the seizure by the Japanese of numerous sources of revenue, actual receipts from the customs, salt, consolidated taxes and other levies were less than half the amount received before the war. To make up the deficit, tobacco, wine, stamp, and transit taxes were increased or extended, and \$1,600,000,000 worth of bonds were issued during this period. The bonds were partly bought by the people and partly mortgaged with the banks. With the latter's cooperation, the bonds were absorbed without difficulty and the National Treasury was thereby enabled to meet all calls on it.

It has been a constant practice with the National Government to honor its external and internal obligations. Especially has this been true in the case of foreign debts. During the first period there was generally no default in principal and interest payments. Even after the seizure by the Japanese of the Customs revenue on which they are secured, the Chinese government authorized the Inspector-General of Customs to overdraw from government banks more than \$170,000,000 for the purpose of meeting debts. The amount of foreign exchange needed was duly supplied by the government.

Local finances were in the process of reorganization before the war. Deficits in provincial treasuries grew with the extension of hostilities, which brought about reduced income and increased outlays. Large subsidies for these provinces thus again increased the outlays of the National Treasury.

The legal tender policy adopted before the war nationalized all silver in the country to strengthen the specie reserve behind the national currency, besides giving the Central Bank of China a superior position among Chinese financial institutions. When major hostilities broke out in Shanghai in August, 1937, there was some confusion. To prevent "runs" on the banks and at the same time to stop outflow of capital, the government ordered Chinese banks to suspend business for three days. This was followed by the proclamation of a set of stabilization measures restricting the amount of money which could be withdrawn at a time. In addition, a *wei-wah* system was introduced to facilitate business transactions thereby reducing the occasion when transfer of actual money was necessary.

As these emergency measures were not applicable to foreign banks, a "gentleman's agreement" was entered into between them and the National Government requiring the former to cease supplying foreign exchange to speculators and others who intended to move capital to foreign countries. Meanwhile a joint discount and credit committee was formed by the four government banks to issue loans in accordance with a set of government regulations. In April, 1938, a set of regulations was announced for the improvement of local banks. Under these rules, banks are allowed to obtain dollar notes and subsidiary notes for meeting small loan requirements in the interior provinces.

As for foreign exchange, the system of free transaction was maintained during the first nine months of the war and the rates remained stable. In March, 1938, however, the Japanese set up the so-called North China Federal Reserve Bank which proceeded to issue large quantities of puppet notes in an attempt to raid China's foreign exchange and to undermine her currency. Because of practical reasons, government control over foreign exchange on the Shanghai market, which is influenced by foreign banks, was not properly effective. Consequently, a new device was adopted whereby those applying for foreign exchange must beforehand secure approval from a responsible office before the amount was supplied by the Central Bank according to official rates. Meanwhile, foreign exchange realized from exports like *tung* oil, hog bristles, and other special products were required to be sold to the Bank of China and the Bank of Communications. Thus, the National Government secured better control over foreign exchange. It is true that foreign exchange was still available on the black market and the Chinese dollar began to drop in value in terms of foreign currencies, but the Japanese intention of seizing Chinese foreign reserve was frustrated and the public faith in legal tender notes remained firm, although the total amount of notes issued had been increased. There was no sign of malignant inflation.

Due to the launching of new development projects in the interior as well as other war conditions, budgetary estimates for 1939, 1940, and 1941 were greatly increased. The actual outlays in 1939 almost equalled the aggregated figures for the years 1937-1938. Those for 1940 marked a 40 per cent. increase as compared to those of 1938, while the 1941 estimated expenditure is about 65 per cent. more than the 1940

expenditure. Of the 1940 expenditures, about 70 per cent. went into national defense, which included ordinary military outlays, the buying of weapons, the building up of army food reserve, and reconstruction enterprises with direct bearing on national defense. Eleven per cent. of the 1940 outlays went to economic enterprises and communications, while the remainder was divided among administration and debt payments. Of the 1941 estimate, 31 per cent. is earmarked for ordinary expenditures, 39 per cent. for war expenditures, and 30 per cent. for economic reconstruction.

To meet such demands, efforts were directed toward the discovery of new sources of revenue and the fostering of a greater capacity for absorbing government bonds. Consequently, the excess profit tax and inheritance tax were introduced and the scope of the income tax was enlarged to complete the systems of direct taxation. The Direct Taxation Administration was added to the Ministry of Finance in 1940. Direct taxes have yielded far more than had been expected from such a new form of taxation.

Beginning from 1941, consolidated taxes are collected on the basis of prices, instead of volume. This measure will triple the revenue from this channel, which in pre-war years averaged around \$100,000,000. Besides tobacco, flour, cotton yarn, matches, cement, wine, mineral products, and firecracker materials listed in consolidated taxes, sugar was added to it in 1940.

More bonds were issued since such floatation is considered a necessary wartime financial practice. To attract foreign exchange and at the same time to arrest the outflow of capital, some of the bonds are quoted in gold currencies to be sold either in foreign currencies or their equivalent in Chinese currency. As a result of this arrangement, Chinese abroad became more enthusiastic in buying government bonds. By the end of 1940, the Chinese government had floated eight internal loans totalling Chinese dollars \$14,750,000,000.

Friendly nations also granted a number of needed credits to help China's resistance and reconstruction, as well as to stabilize her currency.

During the first period, despite the seizure by the Japanese of the bulk of China's Customs revenue on which numerous foreign and domestic loans are secured, the Chinese government continued to pay for the services of these obligations. Obviously

this could not go on forever. Therefore, on January 15, 1939, the Chinese government declared a moratorium on all Customs-secured foreign and domestic bonds with the provision that a share of the long-term debt service proportionate to the collections in areas not subject to Japanese interference be set aside and deposited in the Central Bank of China. For similar reasons, the Chinese government on March 26, 1939, took action in relation to the salt loans similar to the arrangements concerning the Customs loans. Since the enforcement of these measures, there has been no drop in the market price of Chinese bonds.

A reorganization of the customs was effected during the period to combat Japanese smuggling. In 1941 an anti-smuggling department was established under the Ministry of Finance. It exercises unified control over all anti-smuggling units throughout the country, and maintains its own anti-smuggling guards to check the \$400,000,000 annual smuggling traffic carried out by the Japanese. It deals with the investigation and stoppage of smuggling enemy goods in, native goods out to Japanese occupied towns, commodities banned from import or export, gold, silver, legal tender notes, and also deals with cases of customs, salt, and consolidated tax evasions. On July 1, 1939, the Ministry of Finance announced regulations governing the prohibition of 234 imported commodities; in March, 1940, ordered that foreign exchange proceeds from 14 groups of export commodities must be sold to the government. In June, 1939, the ministry permitted the free export of 34 groups of articles produced in the interior and having little or no effect on the wartime resources of the nation.

Another source of China's wartime income is patriotic contributions from the people. The whole nation has responded readily to the government's call for needed funds and war relief materials. The loyalty and generosity of China's sons and daughters abroad is particularly praiseworthy. They have contributed handsomely to the National Treasury, subscribed enthusiastically to government bonds, and invested considerable sums for the wartime development of mining and industries in Free China. Moreover, their remittances home, have always been a helpful factor in reducing China's adverse balance of international payments through the war years.

A national thrift-savings movement was launched in 1940 to increase savings accounts and thus to harness idle capital

for constructive purposes. Up to the end of April, 1941, \$312,240,000 worth of savings certificates were sold at home and abroad, at the rate of more than \$1,000,000 a day. The movement, which is handled by a special organization, is to become a permanent program in China and will reach all corners and classes in the country. A thrift savings lottery was also introduced at the end of 1940, with a drawing every two months.

In the field of banking and currency, greater attention was paid during the second stage to expediting economic reconstruction. The most important step was to strengthen the banking structure. A joint administration office of the four government banks—the Central Bank of China, the Bank of China, the Bank of Communications, and the Farmers Bank of China—was accordingly reorganized to be in charge of all functions concerning the government's wartime currency policy, with Generalissimo Chiang Kai-shek as its chairman. The office has power to direct, supervise, and control the functions of the four government banks such as the concentration and employment of capital, the issuing and distribution of notes, the examination and approval of remittances from the interior to the coastal cities and vice versa, and examination and restriction of application for foreign exchange and the ensuring of a steady supply of essential war materials. It has made comprehensive plans for financing improvement work in agriculture, industry, mining, and communication systems, for making loans for the purpose of securing an adequate supply of essential materials and stabilizing commodity prices.

A number of new banks, each with its own specific mission for the development of a special area or a special enterprise, was established in Free China. Branch offices and agents for existing banks were also founded in the southwest and northwest to ease the flow of money and to complete the network of financial institutions. A set of new regulations were promulgated by the ministry in August, 1940, for stricter control of banks in Free China, according to which, the banks are not allowed to engage in the buying and selling of daily commodities, their deposits can only be used for productive purposes, and they are required to put 20 per cent of their ordinary deposits in either one of the four government banks as part of their own reserve fund.

The four government banks report an increase of

\$1,500,000,000 in savings accounts in 1940 as compared with that of 1939. They granted, by the end of 1940, more than \$700,000,000 and HK\$900,000 worth of loans and discounts, \$302,000,000 in rural loans, and underwrote \$95,000,000 worth of war risks. Several millions of dollars were invested in industries and other enterprises.

On account of practical reasons, note-issue increased considerably during the war. From \$1,444,000,000 in July, 1937, the amount has since increased to several times that figure. A considerable part of these notes are hoarded by the public to meet emergency requirements. Extended circulation in areas formerly not fully reached by legal tender notes also tended toward a larger circulation. Other notes are immobilized in Japanese-controlled territories. The Chinese currency is well backed by specie reserves in the form of gold, silver, and foreign exchange. The government bought more than \$200,000,000 worth of gold and silver between July, 1937, and December, 1940.

Fluctuations in the value of Chinese currency in terms of foreign exchange are inevitable in time of war. In the first period, the Chinese government did not enforce a strict control but merely tried to maintain the official rates in the face of heavy losses. By the spring of 1939, the Japanese set up another puppet bank in Central China which also started issuing bogus notes in an attempt to disrupt Chinese currency. They also forbade the circulation of Chinese legal tender notes in Central China. To cope with the situation, the government, aside from examining more carefully all requests for foreign exchange, established a stabilization fund committee with the cooperation of foreign banks in China. It was a deliberate measure to stabilize commodity prices through the purchase and sale of foreign exchange. This represented the second step in the exchange control. Then in June, 1939, great changes occurred on the money market in Shanghai, which made it impossible for the stabilization fund committee to continue supplying foreign exchange. Chinese dollars dropped heavily in black market transactions. The Chinese government forbade the importation of luxuries and other non-essential articles in order to cut down the outflow of foreign exchange. At the same time, the regulations governing the purchase of foreign exchange by the banks from exporters were revised so that the difference between the official rates and market rates in Chinese currency



are returned to the exporters themselves. The purpose was to encourage exports and at the same time to increase the amount of foreign exchange coming into the country. This represented the third step in the control of foreign exchange. When the American and British stabilization funds were concluded in 1941, another stabilization fund committee, with representatives from China, the United States, and Great Britain was organized to handle foreign exchange transactions and to stabilize the Chinese dollar, forming the fourth step in China's foreign exchange control.

Other important financial measures taken in the second period include the introduction of the Public Treasury System on October 1, 1939. It replaces the traditional decentralized system of handling public funds by various government offices, has the advantage of centralizing the receipts and disbursements of public funds, and at the same time of separating the two functions. It results in closer cooperation of the nation's political and financial powers.

Another improvement is the demarcation of provincial and county receipts, and the reorganization of county finance. The basic principles call for the county to become financially independent through a rational distribution of expenses, development of sources of revenue and reform in financial administration.

A number of changes have been adopted in tax systems. The most important is the National Government taking over of the land tax from the provincial authorities. The tax, which yielded annually more than \$100,000,000 in pre-war years, can also be collected in kind in order to build up quickly a national food reserve. A special committee has been formed by the Ministry of Finance to study detailed plans for the transfer, which will have considerable effect on food control in wartime China. Plans are being considered for state monopoly of such daily commodities as cigarettes, tobacco, wine, tea, sugar, and matches, the proceeds of which, like all other financial and currency improvements and progress made in the war years, are to augment China's strength on her financial front in her war of resistance and reconstruction.

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## 2. ADVANCE IN EDUCATION

An all-round progress has been registered in educational institutions of all grades in Free China during the past four years of war, according to statistics of the Ministry of Education.

At the end of 1940, the number of higher educational institutions in China, including universities and technical colleges, was given by the Ministry at 113. This showed an increase of five as compared with 108 just before the war, of which 91 were either destroyed or damaged or otherwise rendered useless. The total enrolment in the 113 colleges and universities was 44,422 students in 1940 against 31,188 in 1937.

Of the 113 institutions of higher learning, 41 were national, 21 provincial and 51 private. Thirty-eight of them were universities, 42 colleges and 33 technical schools. Thirty were removed to the rear after the war, two were transferred to Hong Kong, 17 were shifted to other places within their provinces, 28 were still carrying on in Peiping, Tientsin and Shanghai (most of them mission schools), nine were originally located in the interior, and 27 were newly-established or reopened during the war.

Eighteen of the thirty higher institutions moved to the rear are now located in Szechwan province. They are: National—Central University, Northeastern University, Kiangsu Medical College, Technical School of Pharmacy, Technical School of Dentistry, Technical School of Fine Arts, Technical School of Physical Education, part of the Southwest Associated University, of Chiaotung University and of the Shanghai Medical College; Provincial—Technical School of Medicine of Shantung and Technical School of Sericulture of Kiangsu; Private—Fuhtan University, University of Nanking, Cheeloo University, Wuchang Central China University, Franco-China University,

Ginling Women's College, Wen Hua Library School, Wuchang School of Fine Arts and part of the Kwang Hua University.

Information from the registered office of the 113 seats of higher learning also showed an increase of students majoring in science as compared with liberal education. In 1940, 3,771 out of 7,024 students who passed the national matriculation tests took engineering, science, agriculture or medicine as major courses, while 2,443 specialized in arts, law and commerce and 810 others were to be trained as teachers. In 1938, when the matriculation tests were introduced, 2,942 out of 5,460 qualified applicants majored in sciences, while 1,427 chose arts and 1,091 selected teachers' courses as their chief studies.

The advance of education in Hunan is noteworthy as the province contributed the largest number of students who passed the 1940 matriculation tests. Of the 7,024, 922 came from Hunan, 903 from Kiangsu, 883 from Szechwan, 851 from Kwangtung, 680 from Chekiang, 591 from Hupeh and the rest from other provinces.

New technical schools and colleges to be added in Free China in the near future include the National Kweichow College of Agriculture and Engineering, the National Technical School of Physical Education, the National College of Social Education, the Kiangsu-Anhwei Provisional College of Political Science, the Shensi Provisional College of Political Science, the Szechwan-Sikang College of Agriculture and Engineering and the Overseas College of Engineering and Business Administration.

### SECONDARY EDUCATION

Similar increases have been registered in the number of secondary educational institutions and their enrolment. Middle schools in Free China in 1939-40 numbered 1,973 with an enrolment of 531,429 students, according to a survey recently completed by the Ministry of Education. These figures mark an upward trend as compared with those for 1938 and 1937 when the number of middle schools was given at 1,814 and 1,896, and the students at 477,585 and 389,948, respectively.

The survey included the 21 provinces of Kiangsu, Chekiang, Anhwei, Kiangsi, Hupeh, Hunan, Szechwan, Sikang, Hopei, Shansi, Honan, Shensi, Kansu, Chinghai, Fukien, Kwangtung, Kwangsi, Yunnan, Kweichow, Ningsia and Sinkiang and the municipality of Chungking. Szechwan is the most advanced in secondary educational progress with 277

middle schools and 78,244 students while Kwangtung comes a close second with 259 schools and 63,417 students. Next comes Hunan with 180 schools and 51,617 students in 1939-40, 173 schools and 37,955 students in 1938 and 173 schools and 40,941 students in 1937; Honan with 161 schools and 43,163 students in 1939-40 and 1938 and 274 schools and 43,576 students in 1937; Kiangsu with 152 schools and 28,970 students in 1939-40, 113 schools and 22,376 students in 1938; Yunnan with 149 schools and 29,151 students in 1939-40, 143 schools and 25,184 students in 1938 and 144 schools and 21,335 students in 1937.

In the survey, 54 middle schools with 27,693 students in 1939-40 and 43 schools with 19,300 students in 1938 are listed as "national." To these have recently been added 14 national middle schools with a teaching and administration staff of 1,801 persons and an enrolment of 20,264 students. The Education Ministry has also established 15 Chungshan (courtesy name of Dr. Sun Yat-sen) Middle Schools in Szechwan, Kweichow and Shensi. These schools, which are not included in the survey, have a total staff of 353 persons and an enrolment of 3,362 students.

Compared with prewar China, the number of secondary educational institutions in Free China during the years 1937, 1938 and 1939-40 decreased by 40 per cent. Before the war, China had 3,264 middle schools of which 1,296 were in areas now occupied by the enemy.

To overcome the loss in number and to meet wartime needs, the Ministry of Education has endeavored to improve the quality of the middle schools in Free China. Measures taken to this effect include the ruling that all students are required to take military training and to attend training camps for three months every summer; the introduction of the tutorial system and the insertion of productive education courses in the curriculum. Such courses include wood-working, gardening and elementary agriculture in lower, and foundry and blacksmithing in the higher middle schools.

In provinces partially occupied by the Japanese, strenuous efforts are made to increase the number of middle schools as well as to improve their quality in order to counteract the Japanese educational offensive. Kiangsi presents a striking example in this connection. An article in a recent issue of the *Education Weekly*, published by the Education Ministry, stated the number of middle schools in Free Kiangsi has been increased to 140 with 46,227 students.

Before the war, Kiangsi had 69 middle schools. The number has since been steadily increasing rather than decreasing as shown in the following table:

<i>Year</i>	<i>No. of Schools</i>	<i>Increase over Preceding Year</i>	<i>No. of Students</i>	<i>Increase over Preceding Year</i>
1936 .. ..	69	—	17,134	—
1937 .. ..	72	3	13,231	—
1938 .. ..	99	27	26,903	13,672
1939-40 ..	117	18	33,571	6,668
1940-41 ..	140	23	46,227	12,656

### SOCIAL EDUCATION

The promotion of social education has also been emphasized during the war. Social education institutions in 21 Free China provinces increased from 132,853 with 2,813,074 students in 1937 to 147,515 with 3,175,475 students in 1938 and to 206,932 with 4,806,718 students in 1939-40.

By "social education institutions" are meant not only regular schools but also training classes and circuit corps engaged in teaching the rudiments of social science to the masses.

According to a survey made of this field by the Ministry of Education, Kwangsi tops the list with 44,102 institutions in 1937, 27,038 in 1938 and 44,406 in 1939-40. The totals are made up of educational organizations of every kind including mobile and mass education classes.

Among social education institutions in Free China with regular school courses are the numerous drama schools. Outstanding are the National Academy of Dramatic Arts at Kiangnan, Szechwan, the Experimental College of Dramatic and Operatic Arts in Chungking and an experimental drama school in Chengtu.

The numbers of social education institutions and students and their distribution in the 21 provinces and one municipality are shown in the following table:

<i>Province</i>	<i>No. of Institutions</i>			<i>No. of Students</i>		
	<i>1939-40</i>	<i>1938</i>	<i>1937</i>	<i>1939-40</i>	<i>1938</i>	<i>1937</i>
Chekiang ..	19,227	19,227	15,531	222,923	222,923	175,351
Anhui ..	5,907	—	—	350,530	—	—
Kiangsi ..	20,463	20,466	16,067	525,120	525,129	881,802
Hupeh ..	759	759	2,342	23,223	23,923	184,611
Hunan ..	15,152	10,192	—	262,175	143,373	—
Szechwan ..	18,412	18,424	16,113	437,773	466,375	452,746

Province	No. of Institutions			No. of Students		
	1939-40	1938	1937	1939-40	1938	1937
Sikang ..	840	692	70	28,734	12,911	1,040
Hopei ..	1,511	—	—	37,801	—	—
Shansi ..	5,526	5,528	7,693	164,130	164,159	163,634
Honan ..	5,805	5,805	5,805	166,148	166,148	166,148
Shensi ..	27,556	5,278	1,489	838,372	135,750	43,104
Kansu ..	5,885	312	387	323,527	9,323	3,227
Chinghai ..	1,307	1,306	135	175,988	176,149	875
Fukien ..	4,624	4,624	2,475	243,116	247,116	63,266
Kwangtung	8,629	8,624	5,741	184,914	184,914	108,046
Kwangsi ..	44,406	27,038	44,102	1,422	396	381
Yunnan ..	16,604	16,604	13,694	617,366	617,366	467,417
Kweichow ..	3,694	2,180	1,037	148,028	68,044	93,260
Suiyuan ..	66	—	—	231	—	—
Ningsia ..	164	73	85	12,268	124	5,562
Sinkiang ..	383	383	147	14,332	11,352	2,604
Chungking	12	—	—	28,597	—	—
Total ..	206,932	147,515	132,853	4,806,718	3,175,475	2,813,074

## CITIZEN EDUCATION PROGRAM

The only exception to the general educational progress in China has been her primary schools. The number of primary schools in 21 Free China provinces decreased from 229,911 with 12,847,924 students in 1937 to 217,394 with 12,281,837 students in 1938 and to 212,740 with 12,180,524 students in 1939-40. The apparent retrogression is due to the fact that many of the regular primary schools in Free China have been turned into *pao* citizens' and *chen* central schools in accordance with the five-year citizen education program adopted by the Ministry of Education.

Detailed measures for executing the citizen education program were devised at a meeting of the Citizen Education Promotion Committee held on April 13. The committee was organized by the Ministry of Education. It consists of two members each of the People's Political Council, the Legislative Yuan and the Finance Commission of the Supreme National Defense Committee.

Problems discussed at the meeting concerned finances, personnel, treatment of teachers and effective management of the *chen* and *pao* schools.

Regarding finances, it was decided to adhere to the original plan and ask the Central Government to make appropriations accordingly. Central government subsidies for the citizen education program, according to the plan adopted at a confer-

ence last year, shall be \$32,000,000 for the first year (August, 1940 to July, 1941), \$56,000,000 for the second, \$64,000,000 for the third, \$80,000,000 for the fourth and \$70,000,000 for the fifth and last year.

The committee, at the meeting, also agreed that the principals of the *chen* and *pao* schools should concurrently serve as *chen chang* (village chief) and *pao chang*, respectively, instead of vice-versa. Wherever finances permit, the posts of *chen chang* or *pao chang* and principal of the *chen* or *pao* school should be held by different persons. To assure effective administration of the schools, it was decided to hold periodical examinations of the school personnel so that rewards and punishment may be given.

To improve the treatment of teachers, it was urged that due consideration be given to the cost of living in different localities. Besides the regular salary, it was suggested that the teachers should be given an allowance for rice or lodging or both, according to local conditions.

Reports read at the meeting showed that the three provinces of Szechwan, Kweichow and Kansu lead the citizen education program. In some cases these provinces have exceeded the mark set by the Ministry of Education last year when the program was started.

The program calls for the establishment during the first year of one central school for each *chen* and one citizen school for every three *pao* so that by the end of one year (July, 1941), 65 per cent of the children of school age (between 6 and 15) and more than 30 per cent of the illiterate adults, ranging in age from 15 to 45, shall be in school. Each year, the number of schools and their enrolment are to be gradually increased so that after the program enters into its fifth and last year in August, 1944, there will be one citizen school for each *pao* and the entire remaining illiterate population, children and adults, will be in school.

Statistics of the Ministry of Education show that in 1938 China's illiterate population totalled 360,000,000. Of this number, 40,050,000 were children below six years, 74,250,000 children of school age (6 to 15), 79,430,000 old people above 45 and 1,570,000 dumb, deaf, crippled or insane persons. The number of illiterate people within the age bracket of 15 and 45 is thus reduced to 165,000,000. Since 1938, however, 46,348,469 illiterates have been educated. Of this number, 44 per cent were children, and 56 per cent were adults between 15 and 45.

By August, 1940, when the five-year program was launched by the Ministry of Education, the number of illiterate adults between 15 and 45 to receive schooling was approximately 140,000,000 and that of children between 6 and 15, 53,101,531.

### PROGRESS IN SZECHWAN

A little over half a year since the beginning of the program, Szechwan has reached the goal of one citizen school for every three *pao*. In several places the mark set for the first year has been exceeded. In the third district, consisting of the nine counties (*hsien*) of Kiangpeh, Pahsien, Kiangtsin, Chikiang, Pishan, Tungliang, Hochuan, Tatsu and Jungchang and the special administrative area of peipei, 350 *chen* and 2,500 *pao* schools have been established. In some of the counties the average number of citizen schools is one for every two *pao*. The Szechwan Education Commission has recommended that the Ministry of Education specially reward those in charge of the citizen education program in this district.

Improvement in the treatment of teachers has been reported in five districts of Szechwan province in which the average salary level is upward of \$30 per month with an allowance for rice.

For executing the five-year education program, the province is divided into ten districts. Each district consists of ten counties. In 83 out of 100 counties the goal of one school for each *chen* and one school for every three *pao* has been attained. In addition, special sections have been organized by the governments of these 83 counties to take charge of the promotion of citizens' education.

Szechwan has been able to make more rapid progress in the program mainly because of the "education promotion through production" slogan advocated by its education commissioner, Mr. Kuo Yu-shou. Szechwan had to depend largely on its own resources because the subsidies did not come through in the proportion originally expected.

According to the original plan, the amount needed to finance the program in the first year is \$16,000,000. Of this, the *hsien* governments are to raise 50 per cent or \$8,000,000, while the central and provincial governments are each to be responsible for 25 per cent or \$4,000,000. For the second year, \$32,000,000 will be needed of which the *hsien* governments are to contribute 60 per cent or \$19,200,000 while the central and provincial governments shall each give 20 per cent



or \$6,400,000. For the third year, the amount will be increased to \$48,000,000, with the *hsien* governments bearing 70 per cent or \$33,600,000 and the central and provincial governments 15 per cent each or \$7,200,000.

Besides the regular budget, the Ministry of Education is to appropriate respectively \$3,500,000, \$6,300,000 and \$7,280,000 as subsidies for the first three years.

In view of reductions in these subsidies, the Szechwan provincial government had to meet the deficit by tapping new financial resources. Every step has been taken to encourage *hsien* governments to greater initiative. The education-through-production slogan calls for the utilization and development of public property, such as land, temples, memorial halls, from which part of the revenues for the *chen* and *pao* schools may be derived. The scheme has been carried out in several districts of the province.

#### IN OTHER PROVINCES

Ranking next in the progress of the citizen education program is Kweichow province. Under the leadership of its chairman, Mr. Wu Ting-chang, the program came to a late but good start. By the beginning of 1941, it was well under way in 12 counties where the district autonomy system of government had been enforced. In these counties have been established 275 central and 900 citizen schools—an average of one central school for each *chen* and one citizen school for every three *pao*. Of the 275 *chen* schools, 115 were reorganized from old primary schools while the remaining 160 were newly established. Only 400 *pao* schools were newly established, the remaining 500 having been reorganized from old short-term primary schools.

In other counties, 100 *chen* and 300 *pao* schools were newly established and 50 *chen* and 100 *pao* schools reorganized from old primary schools.

The amount needed to finance the citizen education program in Kweichow in 1941 is \$30,027,500. Of this, \$19,655,000 is set aside for the 12 district autonomy counties and the remaining \$10,372,500 for the other counties. The same principle of sharing applies to Kweichow province. The central and provincial governments are each to contribute 25 per cent or \$7,506,875, while the remaining 50 per cent or \$15,013,750 is to be borne by the *hsien* governments.

Details of the progress of the citizen education program in

Kansu province are not yet available. It is known, however, that by 1939 illiterate adults within the age bracket of 15 to 45 totalled 1,170,000. Of this number, 600,000 have been educated in the last two years. The remaining 570,000 are being admitted in the divisions for adults of the *chen* and *pao* schools established since August, 1940.

The progress made in other provinces is shown in the following table:

<i>Province</i>	<i>No. of Chen Schools</i>	<i>No. of Pao Schools</i>	<i>Average</i>
Kwangtung . . . .	2,500	9,500	1 for 4 <i>pao</i>
Anhwei . . . . .	447	4,553	unknown
Chekiang . . . . .	807	18,085	"
Shensi . . . . .	1,026	12,012	"
Ningsia . . . . .	102	380	"

In other provinces, anti-illiteracy work is continued in the form of the mass education movement. In Sinkiang, for instance, the mass education movement has to deal with 3,600,000 illiterates, ninety per cent of the population of 4,000,000. According to plans of the Sinkiang Education Commission, 540,000 will be taught in mass education schools in 1941 and 610,000 in 1942. In four years, all illiterates will be enabled to read and write.

An anti-illiteracy campaign launched in Fukien at the beginning of this year has as its goal the education of 1,000,000 illiterates in the province.

According to the principles governing the citizen education program promulgated by the Ministry of Education, the *pao* school has a four year course, and the *chen* school offers a six year course. In both schools there should be a primary school division for children and a division for adults—a class for men and another class for women. Each class is to consist of 50 students. The classes for adults attached to the *pao* schools are intended for new entrants while those in the *chen* schools are provided for advanced students who have graduated from the *pao* schools.

The *pao* school shall be headed by a principal who may concurrently act as dean while the principal and dean of the *chen* school should be different persons except in localities where funds are limited. Teachers for schools of both grades may be chosen from those who have had teaching experience in primary schools or mass education classes. Before their engagement,

however, an examination should be given and those whose qualifications are found unsatisfactory should be given a period of training ranging from three to six months.

### VISUAL EDUCATION

The latest development in Chinese education has been the promotion of visual education. The Ministry of Education established in 1936 a visual education promotion committee. It has since produced many educational films among which the lantern slide series entitled "Wen Tien-hsiang," a patriotic general during the declining Ming Dynasty, and a movie "Chinese Banknotes" have been widely acclaimed.

With a view to popularizing visual education on a nationwide scale, the ministry has ordered the establishment of visual education departments by all provincial governments. Szechwan was the first province to carry out this order. Its visual education department, affiliated with the Education Commission of the provincial government, has to date turned out scores of films of a high instructive value. Other provinces that have followed suit are Chekiang, Kiangsi, Fukien, Kwangsi, Hunan and Kweichow.

Pioneer in the field of educational cinematography in China is the Science College of the University of Nanking which first introduced visual education to Chinese masses and students by 16 millimeter educational films in 1930. In 1934 it established the department of educational cinematography to make its own films. To date, some 120 reels of educational films aggregating 40,000 feet and covering a variety of subjects have been produced and released by the department. They have benefited hundreds of thousands of people in all walks of life.

A further stage of progress in the promotion of educational cinematography was made by the Science College in 1938 when a visual education institute was organized. The institute, which offers a two-year course, graduated its first class of eight students in the summer of 1940. Ten will be graduated this summer and 16 will complete their studies next summer. For the autumn semester this year 30 will be enrolled. Among them are students recommended by the Kansu, Shensi, Szechwan, Yunnan, Kweichow, Kwangsi and Sikang provincial governments.

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### 3. HEALTH WORK AND NEEDS

As in other countries, separate organizations are in charge of China's army and civilian health services. The Army Medical Service, headed by Surgeon-general Dr. C. T. Loo, is an organ of the Ministry of War, while the National Health Administration, headed by Dr. P. Z. King, comes directly under the Executive Yuan. Helping both is the Chinese Red Cross Medical Relief Corps, the moving spirit of which is Dr. Robert K. S. Lim. It is a civilian organization put on a wartime basis since 1937.

Dr. Loo is a graduate of the American-endowed Peking Union Medical College. He made extensive trips in Europe and America in prewar days studying army medical problems. He entered the Chinese Medical Service in 1930 and was promoted to director-general in January, 1940. Before he was appointed to his present post, he had been director of the medical department of the Central Military Academy and commandant of the Army Medical College.

Dr. King received his M.D. degree from Chiba University, Japan, in 1918. Later, he received his Certificate of Public Health from Johns Hopkins University, U.S.A. in 1927. For many years he was deputy-director of the National Health Administration. He was promoted to its directorship in the latter part of 1940.

Dr. Lim was educated at Lyons' School, Harrow, and George Watsons' College, Edinburgh. He received the degrees of M.B. and Ch.B (Bachelor of Surgery) in 1919. The following year, he took his Ph.D., and four years later, his D.Sc. degree. For some time, he was a research fellow at the University of Chicago. From 1924 up to the outbreak of the war, he was connected with the Peking Union Medical College as professor and head of its physiology department.

The organizations which these three doctors head are cooperating closely to reduce loss of life and mitigate human suffering in wartorn China. In the face of numerous difficulties, they have individually and jointly done their utmost. They have a common need for larger qualified personnel, more medical supplies, more equipment and more transport facilities. The American Red Cross will be doing China a great service by extending greater assistance to the three Chinese health organizations.

### THE ARMY MEDICAL SERVICE

Imagine a war front which extends, north to south, from Chicago all the way down to Cuba and, east to west, from New York to Kansas. Behind this line are deployed 150,000 medical men of all ranks from doctors and nurses down to orderlies and stretcher-bearers. Their duty is to bring wounded soldiers from the battlefields, give them first aid and emergency treatment and then send them to military hospitals in the rear. This is the job of the Chinese Army Medical Service.

For four years, despite numerous difficulties, this service has been trying hard to save as many lives and limbs as possible. Today, it maintains about 650 medical units, including hospitals, casualty receiving stations, surgical operating teams, anti-epidemic corps and various transport and supply outfits.

The frontline activities of the Army Medical Service consist of the issue of first-aid packages to the rank and file, the establishment of aid posts in and near the combat zones, and provision for evacuation to places of relative safety of the severely wounded and sick soldiers. The last task alone requires an elaborate organization. It used to be simpler early in the war when there were still railways to be used. Now much of the fighting goes on in roadless areas, making evacuation exceedingly difficult.

Chinese peasants behind the lines have been unusually helpful in relaying the sick and wounded from one village to another until the latter arrive at lines of communications. There the men are picked up by ambulances and trucks or put aboard native junks. Eventually they find their way into military hospitals away from the scenes of hostilities. In this work, the Christian Service Council for Wounded Soldiers in Transit has also given much help.

Of the total soldiers admitted to military hospitals during the last four years, two-thirds were casualty cases and one-third

sickness cases. The majority recovered and subsequently returned to the front. From two to three per cent became permanently disabled. About 10 per cent succumbed to diseases or wounds.

The Army Medical Service has unceasingly attempted to apply modern methods of treatment, but no doubt past conditions in many places left much to be desired. While there is a myriad of reasons to account for these conditions, the foremost difficulty lies in the magnitude of the work.

Today, China's frontline troops number about three millions, while there are two millions in reserve. An army medical service should consist of about 10 per cent of the army strength. In China's case, there should be 300,000 men in the medical service. Of these, 10 per cent or 30,000 should be medical officers. Yet, when the war broke out there were less than 6,000 qualified doctors and 5,000 qualified nurses in the whole country.

The urgent needs over such a wide area necessitate, under the present conditions, a type of work which takes into consideration the quantitative side of the problem somewhat at the expense of its qualitative side. But the Chinese Army Medical Service has striven to establish here and there hospitals of a higher standing, laboratories to assist in the diagnosis of diseases, and anti-epidemic corps to combat and control epidemics among the troops. The Friends of the Wounded Society provides better food and other services for the convalescents.

The Army Medical Service has set up depots to make those supplies which can be manufactured locally, transport units relying largely on manpower, and orthopedic centers to rehabilitate the wounded. But these provisions have not been sufficient to meet all needs.

One of the serious problems is the absence of a high technical standard among the army medical personnel. During the last two years, training schools have been organized as a partial solution of this problem. The results have been fairly encouraging. All graduates join the service.

The supplies present the next problem. The Chinese Army Medical Service needs every month seventy-five tons of essential things. Some of them can be produced in the interior, some can be made on a small scale, some have been replaced by substitutes, while others cannot possibly be made

in Free China. Bandages, gauze and cotton wool are made in the hinterland. Vaccines for cholera, typhoid and smallpox and tetanus toxoid are produced in adequate quantities in plants established with funds contributed by Americans.

Certain surgical instruments are also native made but not enough to meet the demand. The same is true of artificial limbs, but more tools and machinery are needed to increase the output. The discovery of substitutes is an interesting adventure. Operating tables in Chinese military hospitals are made not of iron or aluminium but of bamboo. Enema cans, irrigators, and even mosquito netting are made from the same indigenous material.

However, equipment like X-ray machines, so essential for the treatment of fractures, microscopes, autoclaves, and such essential drugs as arsenicals, quinine, sulfanilamide, sulfapyridine, etc., can not be manufactured in China under the present stage of industrial development. They have to be obtained from abroad. This fact leads to another problem, that of transport facilities. To bring these supplies in and to distribute them in a regular stream to the front requires more trucks, spare parts and fuel.

War breeds epidemics. Through the combined effort of numerous anti-epidemic corps, serious epidemic diseases among the troops have been kept more or less in check. In four years of war, there have been comparatively few cases of smallpox, the effect of widespread vaccination. Cholera did break out in the last three summers at different places but there were relatively few cases in the army. That proves that millions of doses of cholera vaccine and hundreds of tons of bleaching powder have been used to good account.

The shortage of medical and auxiliary personnel in the Army Medical Service has been somewhat remedied by the enlistment of many voluntary workers from China and abroad. Among them are many overseas Chinese and foreign doctors.

The Emergency Medical Field Service Training School, established in 1938, has turned out over 5,000 graduates. This school, with headquarters in Kweiyang in the Southwest and a branch in Paocheng in the Northwest and three others elsewhere, is operated jointly with the Medical Relief Corps of the Chinese Red Cross. In addition, the Army Medical College is offering short courses besides the regular five-year training.

## THE CHINESE RED CROSS

The Chinese Red Cross through its Medical Relief Corps has been of great help to the Army Medical Service. Organized at the end of 1937 after the fall of Nanking to take care of the wounded and sick on the rapidly extending war fronts, the Medical Relief Corps has succeeded in building up in all war areas an organization which covers preventive and curative services as well as important adjuncts to these services, such as laboratory and X-ray examinations.

The significance of the Medical Relief Corps is that its staff consists entirely of qualified doctors and nurses whom the Army Medical Service so greatly lacks. Therefore, the first function of the Chinese Red Cross is to supplement the personnel of the Army Medical Service.

The Medical Relief Corps has 150 units, about two-thirds of which are distributed behind the fronts, attached to armies, helping them to build up and run an adequate medical and health service. Between campaigns, they extend this service also to the peasants. The remaining third works in military hospitals along lines of communications.

Between January, 1938, and December, 1940, the Medical Relief Corps treated 4,457,879 sick and wounded cases in addition to looking after the health needs of an equal number of others. Of the total, 42,846 were operation cases, 23,983 fractures, 32,766 X-ray examinations and about 4,000,000 dressings.

The ambulances and trucks of the Medical Relief Corps were increased from 42 in January, 1938 to 186 in December, 1940. They transported 71,747 sick and wounded soldiers during the three years, besides shipping large quantities of medical supplies and equipment over the Burma Road. They covered a distance of 4,075,474 kilometers in that period.

In the service of the Medical Relief Corps are 181 doctors, 176 nurses, 19 X-ray technicians, 95 health workers, 14 health engineers, and 360 medical assistants. The corps has on its permanent staff 2,726 persons, including pharmacutists, business and transportation personnel.

The 150 medical units are organized into nine medical groups, one for each war area. The group headquarters are attached to medical centers where training, special treatment, preventive and other technical services are centralized. Each group cooperates with the Army Medical Service, the Emer-



gency Medical Training School and the Civil Public Health Department of its area. In this way, the Chinese Red Cross endeavors to deal with the health problems of each war area as a whole.

To enable these units to carry on, the Medical Relief Corps maintains a supply service and twelve depots, where materials are prepared in standard packages sufficient to cover most needs in chemicals and drugs, dressings, linen and equipment. To bring these medical supplies from abroad and distribute them to the units at the front, and to evacuate wounded from the battlefields, the Medical Relief Corps operates a transport service.

In the past, 85 per cent of the supplies distributed by the Corps were contributed and only 15 per cent purchased. In the coming year, because of the rising prices, almost the entire budget will be needed to cover salaries and local expenses, leaving little margin for the purchase of foreign supplies. Most of the trucks at the disposal of the Corps were also donated. There is a need for more trucks and especially for the means of operating and maintaining them. Without a steady flow of gasoline, oil, tyres, spare parts, etc., it will be impossible to keep the transport service running for long.

An appeal has been made to the American Red Cross to support the Medical Relief Corps to the extent of providing medical supplies and transport needs for one year. The budget for personnel and local expenses, totalling NC\$500,000 monthly, has been assured by the generous support of overseas Chinese, chiefly in the Dutch East Indies. The cost of medical supplies for twelve months is estimated at US\$330,000, while that for transport comes to US\$377,000, making a grand total of US\$707,000 for one year.

Training occupies an important position in the program of the Medical Relief Corps. China's Red Cross personnel is far too small, and it is urgently necessary to utilize this small qualified group in a way that their knowledge is spread as widely as possible. Thus, early in 1938, some of the senior staff members of the Medical Relief Corps were requested to take up training and help organize the Emergency Medical Service Training School. With each year of war, training has become more and more important, and the number of training schools has been increased. There are now five such schools, and it is planned to organize several more so that each war area will be provided with one.

These schools are responsible not only for training the Army Medical Service personnel, but also for organizing and supervising the technical services and providing manuals of instruction for the medical personnel in the field. Each school has a special training hospital attached to it, where difficult cases are treated. It directs the operating teams and units of the Army Sanitary Corps and of the Red Cross Medical Relief Corps. Thus, each school becomes a medical center for its war area.

This large program is in its beginning, and will require financial support not only for current expenses but also for purchase of equipment. The final objective is to make the entire Army Medical Service personnel available for civilian health service after the war. To this end, methods used have been coordinated with those employed by the National Health Administration. This will not only help to staff the health service in the future, but will also solve a part of the country's postwar problem of demobilization and employment.

To the training schools, orthopedic centers are attached to prevent needless disability and deformity among wounded soldiers and to correct such deformities when unavoidable. The number of disabled soldiers is mounting steadily and already totals tens of thousands. In every war and in every country, the livelihood of the war-disabled is a serious problem. It is the aim of the orthopedic centers to reduce disabilities to the minimum and at the same time to give such vocational training in cooperation with the Chinese Industrial Cooperatives as will enable the soldiers to earn their own living. Help both in the form of money and equipment is needed to operate these centers.

For the support of the training schools and the orthopedic centers, the Chinese Red Cross recently issued an appeal, directed principally to the American people. The total requirement for one year is \$1,107,120, Chinese currency, and US\$280,000.

#### THE NATIONAL HEALTH ADMINISTRATION

The National Health Administration is responsible for the civilian health work. It concentrates its energies and resources on epidemic control, air-raid medical relief and health projects along highways, principally the Burma Road. Also, it fights regional diseases like malaria and goiter, and devises a more nutritious diet for the people as a whole.

As part of China's reconstruction program, the National Health Administration is organizing health centers in interior China where modern medicine was formerly non-existent. By the end of March, 1941, no less than 672 such centers were established in twelve provinces. Most of them need to be strengthened and re-equipped. Provincial hospitals and laboratories are not neglected. Health work in factories and orphanages is also carried on.

Since the beginning of the war, thirty-five anti-epidemic units organized by the National Health Administration, including isolation hospitals, mobile laboratories and sanitary engineering teams, have been working at points of concentration of refugees. They have inoculated 2,500,000 civilians against cholera and typhoid, treated 15,000 cases of cholera, vaccinated over 1,000,000 against smallpox, diphtheria, meningitis and plague. In preventive work against typhus and relapsing fever among refugees, 500,000 persons have been deloused.

In air-raid medical relief, the National Health Administration has charge of civilian victims. It also disseminates knowledge of first-aid and of precautions against gas attacks. For travelers and highway workers, there are 40 highway health stations, each with 25 hospital beds and 25 mobile units. The health work on the Burma Road, which alone constitutes a stupendous task, is centralized under the Yunnan-Burma Highway Health Administration. The highway passes through western Yunnan where malignant malaria attacks road-builders and truck-drivers, threatening to lower transport efficiency. To cope with this situation, an Anti-Malaria Commission, with research stations and clinics, has been formed.

Three American health experts, Dr. L. L. Williams, Dr. H. J. Bush and Dr. Bruce Mayne, have been helping the Chinese civilian health service in malaria work. They have been generously "loaned" to China by the United States Public Health Service. The Chinese are also indebted to the Rockefeller Foundation for placing the services of its malariologists at their disposal, in a concerted drive against malignant malaria in western Yunnan.

In carrying out these projects, the personnel and resources of the National Health Administration are being taxed to the utmost. Mission hospitals in China have cooperated with the Chinese health authorities in many ways. In return for monthly cash subsidies and grants of drugs and supplies, they

treat Chinese wounded soldiers, destitute refugees and air-raided victims free of charge.

The Central Hospital, which was moved from Nanking, now has two branches in West China, one in Kweiyang and the other in Chungking. More branches are planned. Medical volunteers are widely sought. Fresh graduates of institutions of medical education in China are drafted the moment they complete their training. The Public Health Personnel Training Institute gives refresher courses in public health. So far, it has turned out 1,442 doctors, nurses, midwives, pharmacists, laboratory technicians, sanitary engineers and health inspectors. The school will soon set up four branches.

Under the National Health Administration are two epidemic prevention bureaus, which manufacture biological products, with an annual output of 20 million doses of cholera and typhoid vaccines and 10 million doses of smallpox vaccine. Thus, China is practically self-sufficient in vaccines and sera. However, because of shortage in essential machinery and tools, raw materials, skilled workmen and because of the sudden demand out of all proportions to that of prewar years, Chinese factories are as yet unable to produce enough surgical instruments, hospital equipment and drugs to meet the pressing needs.

Recently, the National Health Administration amalgamated the Central Field Health Station and the Public Health Personnel Training Institute to form the National Institute of Health. The principal reason for the merger is the similar functions of the two organizations. By pooling personnel and facilities, efficiency is increased.

The National Institute of Health is in charge of various technical functions, such as research and planning concerning public health problems and routine examination and analysis of materials. It comprises ten organs: the Epidemiological Research Institute, the Nutrition Research Institute, and the eight departments of public health administration, experimental medicine, chemistry and *materia medica*, sanitary engineering, maternity and public health, health education, nursing and health statistics.

The Institute offers fellowships to post-graduate students and research workers for advanced training in special health fields. The government is enlisting the best available experts to head the institute. In addition to government appropriations, the Rockefeller Foundation has already given a sizable

amount for the necessary buildings, equipment, library and fellowships.

Public health is quite a new work in China but within the brief span of fifteen years, much has been accomplished. Practically all provinces and leading cities now have organized public health departments. It is hoped that with the organization of the National Institute of Health all types of public health experts will be trained to meet the country's needs. The Institute will also contribute toward the advance of medical science in China.

#### 4. MILLIONS FOR RELIEF

One of the principal tasks confronting China at war is the relief of the millions of civilian refugees and wounded soldiers. Numerous government, civic and religious organizations have been engaged in such work and the resources of the National Treasury, and groups have been greatly extended. Yet, Japan's undeclared war has caused such widespread suffering among the civilian masses in China that the money available is insufficient for the relief of all needy victims.

##### NATIONAL RELIEF COMMISSION

At the helm of China's relief machinery is the National Relief Commission. The immensity of its task is shown in a comprehensive report in which the commission gives the total relief funds appropriated during the period 1938-40 at \$75,985,463.27 and the total number of refugees assisted at 25,684,022. Of the money, \$14,131,358.43 were appropriated in 1938, \$26,314,433.54 in 1939 and \$35,539,671.30 in 1940. By far the largest part came from the National Treasury, other contributions amounting to only \$2,466,363.18.

The commission's four years' work in part reflects the story of China's four years of resistance against Japan—wholesale privations and suffering, misfortunes relieved and lost hopes regained. Japan's military machine on land, at sea and in the air at one time threatened to turn China into a land of refugees, war orphans and air-raid victims. The commission was able to place many of these wanderers in refugee camps and orphanages, in factories and settlement colonies.

The commission was inaugurated on April 27, 1938 by the merger of the Central Relief Commission and the National Emergency Relief Committee of the Executive Yuan, with Dr. H. H. Kung, vice-president of the Executive Yuan and

concurrently Finance Minister, as chairman; Mr. Hsu Shih-ying, former Chinese ambassador to Japan, as acting chairman; and Mr. Chu Ying-kwang, veteran relief worker, as vice-chairman. At once provincial, municipal and district relief commissions were established.

The war zones from which refugees were rescued and transported to the rear were divided into sections. These sections could be expanded, combined or otherwise modified to suit war developments. At present there are six field sections, each under the supervision of a special commissioner, to assist the war stricken. To help the refugees *en route*, the commission set up a string of stations, linked every twenty miles by sub-stations and every ten miles by rest houses.

Besides the ordinary refugees, emergency help has been given to special groups, such as students, engineers, mechanics, architects, railway employees, sailors and fishermen.

The commission from 1938 to 1940 spent \$26,462,895.42 for "Emergency Relief" and \$3,314,348.42 for "Refugee Transport." Refugees assisted by organizations under the commission number 7,192,942 helped by Refugee Relief Sections, 1,713,699 by Transport General Stations, 8,447,750 by Provincial and Municipal Relief Commissions and 8,198,778 by other organizations subsidized by the commission.

There are 352 joint offices for emergency air-raid relief in different parts of the country, consisting of representatives from local governments, relief organizations, Party headquarters and military units. Such offices are found in Chekiang, Anhwei, Kiangsi, Hupeh, Hunan, Szechwan, Kwangtung, Kwangsi, Fukien, Yunnan, Honan, Shensi, Kansu, Sikang and Suiyuan. For this kind of work the commission spent \$4,923,012.74 in helping 130,853 persons affected by air-raids.

#### AIR-RAID RELIEF

The year 1941 saw Chungking's air-raid relief forces centralized under the Auxiliary Capital Air-Relief Emergency Relief Commission, which is independent of the National Relief Commission. General Liu Shih, Chungking's garrison commander, acts concurrently as chairman of the newly-formed commission.

The air-raid relief commission's six departments are in charge of fire-fighting, first-aid and medical relief, control of the dugouts, lights and communications during raids, distribution of money for the wounded and killed, repair of telegraph and

telephone lines, waterworks and electricity and auditing and accounting.

Forces mobilized by the commission include the police and garrison forces of Chungking and residents who volunteer their service. Able-bodied citizens, members of the "righteous and brave" corps, fight fires, extinguish incendiary bombs and handle "duds" during raids. Other groups include the first-aid, the stretcher-bearing, the burying, the debris cleaning, the transport and supplies and the intelligence and communications corps.

The year's air-raid precautions began with the evacuation of Chungking's superfluous residents to the countryside. By the end of May 4, a total of 4,579 Chungking inhabitants were evacuated. For those who have remained, Chungking has enough dugouts. According to a survey made by the commission, the 1,211 air-raid shelters in the city and suburbs of Chungking can accommodate 374,461 persons.

From May 7 to June 4, the commission gave \$374,670 for air-raid relief. Of this \$6,240 went as compensation to the families of 104 killed (\$60 each); \$2,960 to 74 seriously wounded (\$40 each); \$1,350 to 90 slightly wounded (\$15 each); and \$364,100 as emergency relief to 18,205 people affected by raids (\$20 each).

#### WORK-RELIEF PROGRAM

An important aspect of the National Relief commission's work is its work-relief program. Through occupational relief no less than 1,000,000 war sufferers have been put back on their feet. The program has been carried out through land reclamation, establishment of factories and promotion of handicrafts.

Outstanding among the land reclamation districts financed and managed by the commission are those at Hwanglungshan (Yellow Dragon Mountain) and Liping in Shensi province. The former's 740,000 acres accommodates 630,000 settlers, the latter's 4,000 acres has 6,000 people. Among the refugee colonies subsidized by the commission, five are under provincial and nine under private management. They are found in the provinces of Fukien, Hunan, Honan, Kiangsi and Kwangsi. A model reclamation district under the management of the Ministry of Social Welfare is also subsidized by the commission.

The total land under reclamation, national, provincial and private, is estimated at 1,140,000 acres, accommodating 808,780



people. The money appropriated by the commission during the period 1938-40 for this purpose totals \$3,327,578.95.

To provide jobs for industrial workers, factory hands and artisans affected by war, the commission maintains 14 refugee factories, in the provinces of Szechwan, Hunan, Yunnan, Sikang, Anhwei, Kiangsi, Fukien, and Chungking and Shanghai. More than 10,000 stranded refugees have found employment in these factories.

Field relief sections and general stations have also started small factories to put the unemployed to work. In addition, the commission subsidizes factories managed by local governments or public bodies which employ refugees.

The Credit Loan Service established by the commission in May, 1939, has also contributed towards the occupational relief of refugees and poor people in general. Up to December, 1940, \$1,789,000 was appropriated as a sinking fund for credit loans and \$1,029,000 lent through 18 credit loan head offices, 16 branches and 34 sub-offices. Through such financial aid, upwards of 100,000 people have found means of livelihood.

It is estimated that the commission has distributed \$10,077,750 in occupational relief (not including land reclamation and colonization).

For the relief of war orphans, the commission has appropriated \$10,171,407.25. Of this, \$6,000,000 went to 110 non-government organizations and institutions engaged in child welfare work. Among the recipients were many churches and missions in "occupied" China. The remainder was used to finance 27 institutions, established by the commission, caring for 8,000 orphans and homeless children.

Among wartime child welfare organizations is the National Refugee Children's Association, founded by Madame Chiang Kai-shek, which looks after central Hupeh, Chekiang, Kwangtung, Kwangsi and Fukien provinces. It has 19 regional branches and a string of 49 orphanages bringing up 25,000 of China's future citizens.

The China Wartime Child Relief Association has its working sphere in Hunan, Kiangsi and parts of Hupeh, while the National Child Welfare Association of China is in charge of similar work in Shensi, Honan, Shansi and northern Hupeh. In the occupied areas, Catholic and Protestant missions have been doing yeoman work in caring for China's young war waifs.

## FLOOD SUFFERERS

Supplementary to war relief, the commission was called to aid flood sufferers in North China, after the Japanese destroyed the Yellow River dikes at Huayuankou and Chaoko in Honan through aerial bombardment in June, 1938. The area affected increased the following year when the invaders broke the dikes of rivers in Hopei province.

A special Flood Relief Commission for North China was established and funds distributed to the provinces of Hopei, Honan, Shantung and Shensi, including administrative expenses of \$80,000, totalled \$3,190,000. Of this amount, the Honan Provincial Relief raised \$20,000, the Kuomintang Headquarters \$100,000, the Executive Yuan \$3,000,000, women in the Philippines \$20,000. The remaining \$50,000 were contributed by local provincial authorities.

In addition to these sums, the National Relief Commission spent \$1,440,551.52 for the rehabilitation of refugees affected by the Yellow River flood in the four North China provinces as well as other flood-affected provinces. Appropriations made for the latter included \$150,000 for Kiangsu, \$20,000 for Chekiang, \$34,000 for Hupeh, \$20,000 for Kweichow and \$5,000 for Anhwei. Refugees from districts along the Yungting River in Hopei have mostly migrated to Tientsin and for their emergency relief an additional appropriation of \$80,000 was made by the commission.

Flood refugees were given "industrial and agricultural relief." They were employed for dike repairs, dredging of rivers, canals, harbors and lakes, building bridges and roads in the provinces of Chekiang, Kiangsu, Anhwei, Honan, Hupeh, Shensi, Shansi and Fukien. Improved seeds and better farming implements were given to the stricken farmers. Commission appropriations for these purposes totalled \$1,952,359.17.

There have been floods, droughts, plagues and earthquakes in Kiangsu, Chekiang, Shensi, Kweichow, Chinghai, Hupeh and Ningsia. To meet the immediate requirements in these provinces, the commission dispensed \$2,931,170.50 for general relief through the provincial governments or officials sent to the spot.

## SOCIAL RELIEF

In the field of social relief the commission has erected hospitals and clinics in the interior giving free treatment to

the poor, and has given subsidies to foreign and Chinese hospitals and clinics in the provinces of Szechwan, Kweichow, Yunnan, Kwangsi, Kwangtung, Hunan, Hupeh, Anhwei, Fukien, Kiangsu, Chekiang, and Kiangsu. Appropriations to these hospitals and clinics have reached \$672,902.61.

This sum is only a small portion of the \$7,998,322.13 spent by the commission for social relief. The main portion has been used for the training of the idle and unemployed in productive enterprises, for institutes for the care of the disabled and for assistance to other philanthropic organizations engaged in social relief work.

In Chungking, for instance, the commission maintains a model bureau for the training of the idle. This was established in May, 1939, in accordance with a resolution adopted by the People's Political Council. More than 500 were admitted to the bureau where they received instruction in political and military subjects, weaving, printing and the making of chemicals, industrial and agricultural implements. Courses on house and road building were later added to the curriculum. By June, 1940, when the bureau was transferred to the Ministry of Social Welfare, 233 had been "graduated."

Another part of the commission's social relief program is its model hospice for the disabled and invalided at Kiangtsin, Szechwan, founded in December, 1939. Vocational courses were given in this hospice to enable the inmates to earn a living. In other parts of the country, schools for training the deaf and blind have received grants from the commission toward their financial upkeep. Such social relief work is now under the Ministry of Social Welfare.

#### RELIEF OF WOUNDED SOLDIERS

Side by side with the civilian relief is the work for the relief of wounded soldiers. Pioneer among civic organizations engaged in army relief work has been the Christian Service Council for Wounded Soldiers in Transit. The council was organized by the General Assembly of the Church of Christ in Shanghai early in 1938. Its headquarters was first located in Hankow and then removed to Chungking. It has four branch offices, one each in the Northwest, Central China, the Southwest and East China. Its working forces are scattered over the ten districts of Shensi, Honan, Shansi, northern Hupeh, central Hupeh, western Hupeh, Hunan, Kwangtung, Kwangsi and Chekiang, rendering all sorts of help needed by the wounded soldiers in transit from fronts to base hospitals.

The Council spent \$625,615.18 in the interest of China's wounded warriors in 1940, according to the annual report published by the council early this year. This leaves a balance of \$110,262.86 to be carried forward to 1941 as the receipts of the council during 1940 totalled \$735,878.04. Of the receipts, \$400,000 came from Dr. H. H. Kung, who is chairman of the council. Other donations included \$153,360 from the Board of Transports and Supplies of the National Military Council and \$60,000 from the National Relief Commission. Contributions from Christian organizations and individuals in China and abroad totalled \$43,063.83.

Chinese "Y" workers have also been busy under the banner of "Chinese Y.M.C.A. Emergency Service to Soldiers." Its staff of 300 has covered the 14 provinces of Hopei, Honan, Shantung, Shansi, Shensi, Kiangsu, Anhwei, Hupeh, Hunan, Szechwan, Kwangsi, Kiangsi, Kwangtung and Chekiang.

Organized in July, 1937, with Mr. Hsiao Feng-yuan, former general secretary of the Peiping Y.M.C.A. as director, the service had its first headquarters at Tsinan and its working force scattered along the Tung-Pu, Lunghai, Ping-Han and Tsin-Pu railways.

By January, 1938, the tide of war had shifted southward so that the service removed its headquarters to Chengchow. In June of the same year it was further transferred to Hsuechang and Hankow. Then it had 20 service corps stationed in the four main districts of Shensi, Honan, Szechwan-Hupeh and Hunan-Kiangsi.

The withdrawal of Chinese forces from the Wuhan sector made it necessary for the service to remove its headquarters to Chungking. The districts were increased to six, namely, Shensi, Szechwan-Hupeh, Shansi-Honan, Hunan-Kiangsi, Hunan-Kwangtung and Kwangsi. The field force was increased to 30 corps of 300 men.

The organization was further reshuffled in October, 1939, when the service zone was divided into the five districts of Shensi-Honan, Szechwan-Hupeh, Hunan-Kiangsi, Hunan-Kweichow and Kwangsi. In these districts 50 service stations were maintained, and five mobile units were organized.

The activities of the service are of two kinds, namely, regular and irregular. Under the first category are clubhouses for army officers and soldiers; receiving stations for wounded soldiers; dressing stations, mobile service units showing motion pictures and lantern slides and giving performances in modern

drama: service corps attached to armies, on troop and Red Cross trains and aboard ships: letter-writing stations for soldiers: dormitories, dining halls, bath houses and barber shops. Under the category of irregular or mobile activities, the service publishes wall papers, organizes mobile singing corps, provides athletic facilities, holds discussion meetings and conducts mass education classes, all for the benefit of the soldiers.

The work is financed by the National Committee of the Y.M.C.A. and other Christian organizations and a subsidy from the Central Government. Expenses for the period of 1937-40 came to \$828,767.09.

Then there is the Friends of the Wounded Society, which in the early summer of 1940 became a national organization under the auspices of the New Life Movement Association. The society has raised as membership fees Chinese national currency \$5,774,578.37, US\$1,001, £39 5s., 100 francs, HK\$2,510.22 and \$5,160 in Chinese liberty bonds. It has branches in many cities in Free China and its field force totals 2,000 men and women. They are stationed in hospitals, convalescent homes and disabled soldiers' industrial cooperatives, giving all kinds of service to the wounded.

The man who was responsible for the organization of the Friends of the Wounded Society is Mr. William Hsu, American-trained educator, who was principal of a Methodist Mission middle school in "occupied" China before he came to Free China. Disgusted with Japanese attempts to interfere with his school, he decided to come to Free China.

Upon his arrival in Hengyang, on his way to head the Kweilin branch of the Chinese Industrial Cooperatives, he was shown around the town by friends and was moved by the sad plight of the wounded soldiers. He thought he should do something for them instead of joining the C.I.C. The impulse swiftly led to action. He gathered several friends at a meeting and several thousand dollars were raised then and there for the relief of the wounded. Upon arrival in Kweilin a similar meeting was convened and more money was raised for the wounded. By that time he had determined on his wartime career. He refused to stay in Kweilin to assume his office as head of the C.I.C. branch office. Instead, he came to Chungking and started the Friends of the Wounded Movement.

Mr. Hsu is now on his way to the United States. He wants to obtain one million American friends for China's wounded. The Church Committee for the Promotion of the Friends of the

Wounded Movement in China is paying his traveling expenses and the Church Committee for China Relief in New York will give him all facilities during his lecture tour in America.

War relief in China is a colossal task—a task which is more than one or several organizations can handle. There are dozens and even hundreds. The long list includes the Chinese National War Relief Association and the Chinese National Women's War Relief Association, both with branches all over the country; the provincial guilds; the World Red Swastika Society; and numerous religious organizations.

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## V. THE PEOPLE'S PART

### 1. CHINA'S LOYAL CHILDREN ABROAD

Standing shoulder to shoulder with their brothers and sisters at home, China's sons and daughters abroad have in the four years of war shown their unswerving loyalty and unwavering spirit in the defense of their fatherland. Their material and spiritual contributions to China, the land of their ancestors, has in many ways been vital to the nation's successful resistance and reconstruction.

A total of 8,628,681 Chinese are living in foreign countries, according to a recent report published by the Overseas Chinese Affairs Commission of the Executive Yuan. The majority, 8,315,958, lives in various parts of Asia outside China. They include 2,500,000 in Thailand (Siam), 2,260,166 in British Malaya, 1,344,809 in Dutch East Indies, 306,000 in Indo-China, 193,594 in Burma, 923,584 in Hongkong, 117,463 in the Philippines, 157,175 in Macao, and the rest in other islands in tropical Asia. North and South America have 212,651 Chinese. Oceania, including Hawaii and Australia, has 56,469, Europe 34,539, and Africa 9,064. These figures are based on Chinese consular reports, data published by governments of the countries with Chinese communities, information given by Chinese organizations abroad, and independent investigations. They may not include native dependents and those who failed to register with the authorities.

These eight million odd Chinese residents in foreign lands belong to 2,181 organizations, of which 1,064 are ordinary civic bodies, 649 patriotic societies, and 468 professional groups. Most of them are local guilds organized by people from the same native district. The overseas Chinese consist of plantation owners, shop owners, retail merchants, miners, manual and professional workers.

The greatest contribution of China's loyal children abroad toward her war of resistance is money. They contributed more than \$300,000,000 to relief work in China from the outbreak of war up to the end of 1940. A much bigger amount was remitted for investments, and for subscriptions to government bonds, aviation, and other funds, and in contributions sent directly to civilian organizations such as the Chinese Red Cross Society. More than two-thirds of the \$300,000,000 came from the South Seas colonies, including tropical Asia and Oceania, the rest from America and Europe. According to areas, British Malaya leads the list with 43 per cent, the Dutch East Indies made up 13 per cent. Australia leads all other places in per capita contribution, averaging \$500 from each man, woman, and child.

Contributions from overseas Chinese are raised in a number of ways. There are monthly contributions, special contributions, "offer money to the state," special sales, and other means. The usual monthly pledge in America is US\$5, while in British Malaya the pledge is ten shillings a week from plantation and shop owners, and two shillings a week from each pound earned by clerks and workmen. Special donations include war orphan relief, winter garment, gas mask, Friends of the Wounded, Red Cross, and other donations. Money is raised through entertainments, athletic matches, art exhibits, lectures, and free collections. When the Wuhan Songsters toured British Malaya in 1939, a workman paid \$1,000 for a seat and a rich merchant paid \$250,000. It was through such generosity of the overseas Chinese that the songsters raised more than \$11,500,000 during their 480-day singing tour.

"Offer money to the state" movement is usually held four times a year, on New Year's Day, Revolutionary Martyrs' Day on March 29, War Anniversary on July 7, and National Day on October 10. On these days, altars are established in nearly all overseas Chinese colonies, and money is given generously by China's sons and daughters. Besides, such occasions as marriage, birthday, and burial are also made use of to collect money for the state. Flowers, badges, and souvenirs are sold in Chinese colonies and among friends to swell donation funds. In one such collection, a 15-year old Chinese boy in Manila, To Heng-kiaw, "broke his bank" and used his 26 pesos to buy bread for a contribution sale through the Philippine Chinese Women's Relief Association and raised 3,090 pesos. When Mrs. Henry Ford heard the story, she presented the boy with a bicycle. The presentation was made by Mrs. Francis B. Sayre, wife of the



U. S. High Commissioner in the Philippines. Now the "Bicycle Boy" is putting out his treasured vehicle for hire, the proceeds going to the association to be sent back to China.

More than \$100,000,000 worth of government bonds were sold among overseas Chinese since the war, about half of them in gold bonds. Some of the loyal Chinese abroad went further by launching a "burn your bonds" movement to lessen the cost to the National Treasury. School children in Penang made a bonfire with \$4,000 worth of National Defense Bonds in September, 1940, after they reported to the Ministry of Finance the serial numbers of the bonds to be burnt. The movement has spread like wild-fire among Chinese colonies abroad.

When China launched her appeal for winter garments for refugees and soldiers, her overseas sons and daughters immediately responded with great enthusiasm. A total of \$4,000,000 was raised among them during the winter 1939-1940, with San Francisco leading the list with \$1,000,000. Singapore alone pledged \$4,000,000 for winter garments during 1940-1941.

When the Friends of the Wounded Movement was launched, more than 100,000 overseas Chinese became members and contributed more than \$4,000,000 to the cause. The amount was three times bigger than the total amount raised in China in 1940.

Millions were given by China's overseas children for the buying of war planes to defend their home skies. Air Major-General Chen Ching-yun, who was sent to Chinese colonies in America on a publicity tour, reported that US\$6,300,000 were raised during his trip to 70 cities in American states. Besides, 1,000,000 pesos were raised in the Philippine Islands.

When General Wu Te-chen, then Head of Overseas Affairs Board of the Central Executive Committee of the Kuomintang, toured the South Seas Chinese colonies in the latter half of 1940, he raised more than \$30,000,000 for general relief.

The selling of savings certificates among the overseas Chinese is progressing smoothly. By the end of 1940, more than \$15,000,000 worth of certificates were sold in Hongkong and Malaya, not counting those sold in other lands. Out of the \$1,000,000,000 worth of certificates to be sold in 1941, the overseas Chinese are expected to buy \$300,000,000. Arrangements have been made for more sales of such certificates among Chinese colonies.

Overseas Chinese also play an important part in the development of interior China. Malaya Chinese invested

\$1,000,000 and shipped modern machines to China for the development of Kwangsi tin mines. Hawaiian Chinese invested \$1,000,000 in a reclamation colony in northern Kwangtung. The Chung-Nan Rubber Vulcanizing Factory, with workshops at Chungking, Kweiyang, and Kunming to repair rubber tires, is owned by overseas Chinese. Messrs. Tan Kah-kee, Aw Boon-haw, and other overseas leaders have plans for the development of southwestern China with overseas Chinese capital.

Besides, the overseas Chinese remit millions of dollars home each year, which form an important item in China's balance of payments. The amount totalled more than \$2,000,000,000 since the war, with \$1,000,000,000 in 1940 alone. To facilitate the inflow of overseas capital, the National Government has ordered the Bank of China, the Bank of Communications, the Postal Remittance and Savings Bank, the Kwangtung Provincial Bank, and the Fukien Provincial Bank to increase their branches and agents in overseas Chinese colonies and to make arrangements with local financial institutions for remittances to China. The rate of inflow is increasing steadily. At present Chinese in South Seas remit on the average some \$70,000,000 home each month.

Besides money, overseas Chinese have also given freely in materials needed for the persecution of the war. Besides contributing to the aviation fund, San Francisco Chinese presented ten pursuit planes to the Chinese Air Force to form a special squadron. Five planes were presented by Chinese in Burma.

Large fleets of ambulances and Red Cross trucks were presented by overseas Chinese. These vehicles, with Red Cross signs and the names of their donors in Chinese and English, come from all parts of the world and carry on Chinese highways medical supplies to distribution depots and wounded and sick to hospitals. In New York alone, enough money was raised for buying 100 fully equipped ambulances. Java sent a completely equipped unit, including 20 doctors and dressers, and nine ambulances. When Singapore launched a 30-ambulance movement in April, 1940, the net result was 50 ambulances. Overseas Chinese in Rangoon raised enough money to buy 60 trucks for transportation of needy medicines to China. The number was later increased to over 100.

During the first three war years, Chinese abroad gave more than 8,000,000 pieces of winter garments for refugees and soldiers, besides contributing to the winter garment funds. Another 400,000 summer clothes and 80,000 mosquito nets were

made for the wounded in China. These gifts have since come in the form of money on account of transportation difficulties.

Medicines presented by China's overseas children are given in "units" as prescribed by the Army Medical Service. Each unit contains some 50 medicines for ordinary use, enough for a 500-bed base hospital for one month. From America alone, 1,000 "units" were received, enough to supply 500,000 wounded for one month. More than 20,000,000 tablets of quinine pills were given by Chinese in Dutch East Indies in 1940 in response to a campaign launched in March, 1940. Another 4,000,000 tablets came from Batavia early in 1941. Philippine Chinese donated 150,000 pounds of vaseline in 1940. Singapore Chinese, with a capital of \$1,000,000, started a factory for manufacturing medicines and surgical materials for the wounded. Chinese colonies in other countries also freely gave medicines and instruments to alleviate the sufferings of the wounded and sick in China.

Another big contribution from overseas Chinese has come in the form of men. Because of China's large population, Chinese abroad have not been called back to participate in war-time services. However, many overseas Chinese with scientific or other training have voluntarily come home to serve at the front and in the rear. Many of them have fine records of sacrifice and endurance and not a few died for their country.

When the Kwangsi branch of the Central Military Academy opened a special class for overseas Chinese boys, 120 youth from British Malaya, Philippines, Indo-China, Burma, Dutch East Indies, Hongkong and Macao were enrolled to become officers in the new Chinese Army.

From Thailand have come 45 overseas Chinese, including three girls, to enter military service. After completing one month of training in Kweilin, some are serving as drivers, mechanics, and wireless operators in China's mechanized units; the three girls are attached to the political department of a Chinese army unit. There are also large numbers of overseas youths fighting in the Chinese army on different fronts.

More than 4,000 overseas Chinese mechanics, truck drivers, and repair experts have returned since the outbreak of hostilities to serve their country. Many of them have been sent to key points where they are particularly useful in reconstruction projects. They come mostly from Malaya, Dutch East Indies, Philippine Islands, and other South Seas colonies. Hundreds of them are driving trucks over the Burma Road,

dodging Japanese bombs and braving tropical downpours. Their service and loyalty were appreciated by Generalissimo Chiang Kai-shek in an open letter addressed to them during the welcome party at Kunming immediately after the re-opening of the Burma Road in October, 1940.

Besides contributing money and manpower to China, the overseas Chinese have done creditable publicity work in many countries. They have appealed to the people of their countries of residence for help for their homeland, and the response has been generally gratifying. For example, the American Red Cross, the American Bureau of Medical Aid to China, the Bowl of Rice Movement, the United Council for Civilian Relief in China, and the recent United China Relief Campaign, have contributed funds and medical supplies which enable China to relieve much suffering among her civilian population. Money and supplies have been sent to all parts of China by British firms and individuals as well as through such organizations as the Friends of China, the Aid China Committee, and the British Fund for Relief in China. The overseas Chinese have played an important part in bringing such needed help from foreign friends to China.

Groups of overseas Chinese have also come to Free China to see for themselves actual conditions in their fatherland. A group of 50 overseas Chinese from tropical Asia in early 1940 visited Chungking and several war fronts. Besides cash gifts, they brought medical supplies and comforts for the wounded. They also learned of the progress made by Chinese during the war. Mr. Tan Kah-kee visited the wartime capital in 1940 and Mr. Aw Boon-haw in 1941. Mr. B. S. Fong of San Francisco was in Chungking in the winter 1940-1941. A number of leaders from other overseas colonies are still in Chungking or visiting key points in the country. They bring about closer contact between the overseas Chinese and their fatherland.

The overseas Chinese, in their turn, receive help and privileges from the National Government. Although not everyone of the 3,231 primary and middle schools maintained by overseas colonies receives a subsidy from the National Government, \$1,200,000 has been given by the government to help some of them for this year. The National Overseas Chinese Middle School, established by the Ministry of Education and the Overseas Chinese Affairs Commission in Yunnan in early 1940, has 550 students. A novelty of the school is that its classes are being held on a rotation basis so that the students can

start in the school at any time of the year. Most of the students come from Thailand, Burma, the South Seas; some are from America.

The National Chinan University in Shanghai, the only overseas Chinese university in China, will soon be removed to the interior to facilitate the enrolment of overseas middle school graduates as well as the training of teachers for overseas schools.

In view of the tense situation in Europe and the Pacific, the National Government has promulgated a set of regulations for the protection of overseas Chinese early in 1941. It was provided in the outline for the protection of overseas Chinese during the present emergency that, when necessary, Chinese consulates should help in every way those who wish to come back to China, their properties to be registered with the consulates for protection. After returning, the government will help them in locating jobs and educating their children. Those who cannot come back to China may move to other places with the co-operation of local authorities. As a further step to help home-coming overseas Chinese, a special guidance committee was established on March 1, 1941, by the Overseas Chinese Affairs Commission. It registers overseas Chinese returning to China, inquires into their educational standards, maps out plans for enterprises to be launched in China by overseas Chinese, supplies transportation facilities, helps to locate jobs, launch industrial and agricultural undertakings, import overseas capital, and relieve needy overseas Chinese. A number of colonies will be established in Kwangsi and Yunnan to settle unemployed overseas Chinese who have returned to their fatherland.

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## 2. A NEW WOMANHOOD

In war and in reconstruction, Chinese women have stood shoulder to shoulder with their menfolk and performed tasks formerly considered fit only for men. They look after the wounded and mother refugee children. Braving shot and shell, they go to the front to bring cheer to the troops and remain in war zones to bring army and people together. They go behind Japanese lines to strengthen Chinese administrations. They have assumed gendarmerie duties during an emergency. Away from the din of war, they train women in small industries to produce more for the country. They take care of soldiers' families. Women leaders contribute toward the improvement of the national life.

Standing in the frontline of all women's activities is Madame Chiang Kai-shek, China's First Lady. As chairman of the Women's Advisory Council of the New Life Movement Association, Madame Chiang directs and coordinates women's work in China. She leads women's war relief activities and takes personal charge of the welfare of refugee children.

In recognition of her "indomitable courage and leadership in the crisis of her native land," the Gold Medal of Honor of the New York City Federation of Women's Clubs was presented to Madame Chiang in Chungking on April 27, 1939. Since its institution 25 years ago, the medal has been awarded only six times. It is awarded only to a "woman who shall be deemed to have given exceptional service to establish peace among nations, for the welfare of children, the advancement of women, or the spirit of humanity." Finding Madame Chiang to be outstanding in these qualifications, the Federation decided to make her the first recipient of the medal since its award in 1929 to the famous French scientist, Madame Marie Sklodowska Curie.

Another tribute to Madame Chiang came on March 20, 1941, in the form of a three-triangle Y.W.C.A. pin, presented by the Young Women's Christian Association of the United States. A token of American women's recognition of the indomitable spirit and valiant deeds of Chinese womanhood during the war as exemplified by China's First Lady, the pin evoked great interest among Chinese women because the pin had been presented only to Mrs. Franklin D. Roosevelt, the First Lady of the United States of America, and Queen Elizabeth of England.

### WOMEN COUNCILLORS

In political reforms, which are being carried out by the Government hand in hand with economic developments, the services of Chinese women have again been enlisted together with men. Although there are only fifteen women members in a total of 240 of the People's Political Council, a signal honor was paid the women members during the first session of the Second P.P.C. held in March when Dr. Wu Yi-fang, President of the Ginling College for Women (now in Chengtu), was elected to the presidium of five.

Of the fifteen women members, six are educational administrators, two teachers, one is a lawyer, one is engaged to economic research, one in social welfare work and four in politics. There were only ten women in the 200 members of the First Council, but one died before the first session was convened. In the Second Council, all the nine women were reinstated and six new ones added.

In the five committees of the Second Council—military and national defense; foreign relations; civic affairs; finance and economics; education and cultural work—there were women members. The largest number, six, was found on the education and cultural committee. However, the women showed interest in different lines of work as reflected in the proposals they presented.

All women members are active either in educational or public welfare work. Their public-spiritedness and their devotion to the nation's cause are demonstrated by the fact that five out of the six new women councillors are serving on the Women's Advisory Council of the New Life Movement Association, while the sixth is engaged in Party work. Of the five, two came from Wellesley College, two from the University of Michigan and one from Columbia University.

The fifteen members are not the only women engaged in political affairs. Also in rural towns and villages, women share political and administrative responsibilities. In Kwangsi province, girls are admitted to the District Construction Staff School, which is training administrators for the 2,327 rural and urban districts of the province. Women are known to have been elected heads of villages and lower administrative districts in other provinces.

#### WOMEN'S PART IN WAR

More spectacular is the part played by women in the war. Many stories have been told of the sacrifices women have made and the hardships they have undergone to serve the country.

One of the centers of patriotic movements, Peiping saw a number of girl students join the guerillas soon after the outbreak of the war on July 7, 1937. Giving up their studies and homes, they have served as nurses and taken over such duties as propaganda among the people, cooking and washing for the guerillas.

The call for war service, which spread to Shanghai with the hostilities, found enthusiastic response from the Chinese women in the port city. The way the society women discarded their modern comforts, to which they used to devote full time, in order to help those in need caused surprise. No sooner had the war broken out in Shanghai on August 13, 1937, than these women rose to the occasion. Money was collected to set up hospitals and refugee camps. Despite bombings and fighting, women personally brought comforts to the front. Without complaining of long hours or disagreeable tasks, many learned how to care for the wounded and serve as nurses.

Wherever there is fighting Chinese women, without exception, are ready for emergency services. When the war spread to the interior and many wounded were brought to Nanchang, capital of Kiangsi province, Kiangsi women quickly organized themselves into war service corps. Among them was a group of teachers and students of an American missionary school, the Baldwin School for Girls. The group, together with outside volunteers, formed two teams of 25 persons each and worked in the villages around Nanchang where several thousand wounded soldiers were convalescing.

The duties of the two teams were to get soldiers and people together, teach sports, games and war songs and organize recreation clubs with books, chess and pingpong for the soldiers.



Owing to lack of space, one team had to lodge in a stable, the other in a temple. In the temple separated by a thin wall from the room where the girls stayed, was an ammunition dump. Although every one of the 25 girls sat up throughout the first night, grimly expectant, they soon got used to it and went about their work wholeheartedly.

#### ENCOURAGING RESULTS

Unusually encouraging results were obtained by the two teams. The very fact that they were girls educated in well-known institutions and coming from well-to-do families, was enough to make both soldiers and people respect them. At the same time feminine care restored in the soldiers the open-heartedness which they had lost in years of drill and hard life. Within a few weeks, the words of these girls became law in the villages where they worked.

While fighting raged on the Kiangsu-Anhwei border, women war service workers went to within a few kilometers of the firing line in search of war waifs. Despite the difficulties of travel and the dangers from fast-moving war developments, the women searched one battered village after another and through out-of-the-way districts for refugee children.

How well they worked was proved by their success. A party of eight went into a region supposedly evacuated. After a diligent search, they returned with 200 children.

When Chekiang province was invaded, women in the province got together for emergency work. To direct war service, the Chekiang Women's Movement Association was organized more than two years ago. Today, it has 10,000 members.

The immediate task which Chekiang women shouldered when war spread to Hangchow, the provincial capital, was the rescue of women and children from the fighting areas. Through their efforts, over 500 refugees, mostly children, were rescued.

#### KWANGSI AMAZONS

Dressed in khaki uniform, wearing a steel helmet and carrying two hand grenades, Kwangsi's girl students, who received military training, have long been identified with war-time work. Short of seeing action on the battlefield, they have followed Kwangsi troops everywhere.

One of their tasks was to encourage the people in guerilla fighting for which they went far into fighting areas. The hand grenades they carried for self-protection.

When the Japanese invaded Kwangsi in the latter part of 1939, girl students rushed with the troops to the front. They helped evacuate women and children, and when orders for withdrawal were given, they seized spades from some men engaged in destroying roads to set an example for the crowds to follow. To relieve the tension, they sang militant songs. As a result, the roads were torn up in good time to impede the Japanese advance.

When later on, the Chinese troops recovered lost ground, the area had been completely evacuated. District leaders tried to persuade the people to return but without success. Girl students were then entrusted with the task. To the hilly regions where the people had taken refuge, the girls went. They sang popular songs, they talked with the women who came out of hiding. Eventually, they succeeded in making the people go back to their homes.

The returned population was taught air-raid precaution measures. They were asked to build dugouts near their homes. Cooperating with the army, the people supplied food to the troops. Following the example of the girl students, the village women washed and sewed soldiers' clothing. Once in a while, the girl students staged war dramas and sang war songs to entertain people and soldiers.

#### KWANGTUNG'S GIRL GENDARMES

To Kwangtung girl students goes the honor of being the first female gendarmes. When a year and a half ago all available troops were rushed to the front during the unsuccessful Japanese push toward Shaokwan, 200 girl students put on khaki uniforms, shouldered rifles and girded themselves with ammunition belts to guard 100-kilometers of a vital supply line in a hilly region near the Kwangtung-Hunan border. Day and night for a whole month, these women saw refugees trek into Hunan and soldiers and supplies stream in the opposite direction. Despite the tension resulting from the severe fighting, the amazon gendarmes maintained peace and order well.

Meanwhile, 40 others remained in Shaokwan with Madame Li Han-huen, wife of the Kwangtung governor, to cook congee for the reinforcements which poured into the province, to help carry ammunition for the soldiers and to care for the wounded from the front. Although the city's residents were evacuated wholesale, the girls remained behind with Madame Li.

Still another group of girls went to the front with the

troops to look for orphans and destitutes, bring cheer and comfort to the troops, and give first-aid.

The girls are members of the women's production corps of the Kwangtung Women's Advisory Committee of the New Life Movement Association. They have been primarily trained to spin, weave, sew and teach illiterate women to read and write. The only other work they had previously undertaken was harvesting for peasants. But the drill they had undergone and the elementary military knowledge they had acquired stood them in good stead in the emergency.

#### CLASSES FOR GUERRILLAS

Unique were the classes conducted in Kiangsi a few months ago for the training of political girl workers for the guerilla and "occupied" areas. Many of the girls were sent to the training classes by Chinese administrators in guerilla districts. Proof of their courage and eagerness was the fact that many girls had to walk for days, sometimes through the Japanese lines, in order to join.

First-aid and military knowledge were among the important topics taught. After graduation, following several months' intensive training, the girls were organized into mobile units. Each unit first established itself in an area close to the front. Here they began to train more girls for first-aid work. In places within reach of Japanese raiding parties, the political girl workers devoted their time to refugee relief and first-aid, and to training the people for wholesale evacuation. Only those girls who proved their mettle behind the front were permitted to cross the Japanese lines.

Also Chekiang women were sent to guerilla areas to help organize patriotic movements and war services among the people and promote friendly relations between the mobile units and the populace.

#### 2,000 IN MEDICAL SERVICE

Working in the field of medicine for the nation's cause are several thousand registered doctors, nurses and pharmacists. According to a survey made in 1939, registered women doctors numbered 941, nurses 3,779 and pharmacists 273, making a total of 4,993. Of the total, 1,114 were then serving with the Army Medical Service, 457 with the Chinese Red Cross Medical Relief Corps, 393 with the National Health Administration and 200 others in the Administration's hospitals and subsidiary organizations. The total of 2,164 registered women medical

personnel excluded those serving in provincial and other health institutions and a large number of unregistered workers.

At least 64 women stick to their posts at collecting stations to which wounded are brought from the front. They belong to the Army Medical Service. To these stations women medical personnel is also sent by the Chinese Red Cross Medical Relief Corps which cooperates closely with the Army Medical Service.

Women doctors, nurses and pharmacists work in field and base hospitals maintained by the Army Medical Service. Others serve with the Red Cross mobile units at the front and in the Administration's anti-epidemic corps which tour the war zones.

Of the 2,164 women engaged in wartime medical service, nurses are by far the greatest in number, totalling 1,384. Next come the 195 doctors, followed by dressers and pharmacists.

#### "MOTHER OF WOUNDED SOLDIERS"

Chiang Kian, the late Mrs. Chow Ming-tung gave a stirring example of the sacrifices Chinese women have made. Against the advice of her physician-husband, she worked without let-up in hospitals and in an orphanage despite her failing health until death claimed her on October 5, 1940, at the age of 38.

Coming from a well-to-do family, the late Mrs. Chow married young and without the benefit of modern education. Answering the nation's call to duty, she learned first-aid principles from her husband and later enrolled in a special nursing class in Hankow in order to qualify herself for the work she was determined to take up. In September, 1937, she began work in a military hospital in Hankow. Throughout her nine months at the hospital, she was absent only once, on the day her husband's mother died. Otherwise even when her only son fell ill, she came to the hospital as usual, keeping her family worries from her charges. Every now and then she bought eggs, pork, beef and fresh cabbage and cooked special dishes for the soldiers as a diversion from the hospital diet. During Chinese New Year's Day, she stayed up late for two nights, preparing 500 gift packages for the men.

Those who were in Hankow in May, 1938, perhaps recall the occasion when Mrs. Chow had to leave for up-river with the heavily wounded. The soldiers who remained behind gave a farewell party in her honor. Many moving speeches were

made by the convalescents. About 100 of them, limping along, paraded through Hankow's thoroughfares to present a memorial tablet at Mrs. Chow's home despite all her efforts to dissuade them from doing so.

Known as "Mother of the Wounded Soldiers," she continued her work in Ichang, and later personally escorted 100 war orphans to Chungking. When she was made honorary superintendent of the Hokiang orphanage, her husband served there as volunteer physician and her only child studied and played with orphans. The same love and care she had given the wounded soldiers were accorded the orphans. She devoted all her time and strength to her work until her dying day, leaving behind a memory which will long live in the hearts of many wounded soldiers and war orphans.

#### WOMEN IN RECONSTRUCTION

Equally heroic parts are played by the Chinese women in the field of reconstruction. When a new road has to be built, Chinese women, as well as men, take up picks and spades. They work on high cliffs in cold winds and on low-lying marsh land in the scorching sun.

Many new roads lead to Chungking. In every one of them, Chinese women have had their share of toil. In the far Northwest and in China's Southwest, in the east and in the west, Chinese women have done their part in road-building. As one news agency reported, the 240-mile Kansu-Szechwan highway will stand as an immortal monument to the women of Kansu, thousands of whom have worked on it.

Through the efforts of the Women's Advisory Council, thousands of factory women were evacuated from Hankow to Shensi and Szechwan where they help keep the wheels of industry going.

College girls have gone to villages and towns to train women in first-aid work and teach them reading and writing and home industries. Tragedy overtook one group of girls at Hengshan, south of Changsha, after the evacuation of Hankow in October, 1938. Such was their enthusiasm and spirit that they continued a discussion regarding their work in spite of an air-raid. Three of them were killed and two were seriously wounded in the raid. Dying, one of the trio said her only regret was that she should die before having done anything for her country. Of the two wounded, one was permanently disabled, while the other, suffering from the shock, lost her

memory. Undaunted by the fate which befell this group, the widow of the secretary-general of the district Party headquarters, who was also killed in the raid, joined them so she might complete what was left undone by her husband.

### WOMEN'S ADVISORY COUNCIL

A good illustration of the services rendered by Chinese women to their country, especially in the field of reconstruction, is afforded by the work of the Women's Advisory Council of the New Life Movement Association. It was expanded to its present size of nine departments following a meeting of women leaders called by Madame Chiang at Kuling in May, 1938. Since then women's activities in China have been coordinated. The nine departments are: general affairs, training, livelihood, production, war relief, refugee children, rural service, coordinating, and cultural.

The need for a large number of trained personnel to lead women's activities and to participate in the multiple work of the Council prompted the establishment of the training department. Between July, 1938 and the spring of 1940, seven training classes were held, in which 1,000 young enthusiastic girls, mostly middle school graduates, were given political and military training. Besides, they were taught handicrafts and home industries.

The graduates of the first four classes, totalling 785 girls, have since been engaged in rural service, war area service, production and refugee children welfare work. The trained girls of the other three classes have returned to their native provinces to promote women's activities.

The livelihood department concerns itself with the welfare of women. When fighting approached Hankow, the department helped in evacuating 30,000 women from the river port, transporting them to the rear and finding them new employment. Since January, 1940, the department has organized six service corps to work in large factories. They have trained a staff of 1,706 factory women in social welfare work, and taught 6,688 to read and write.

The department collected \$1,680,000 in "offer gold to the state" movements in the three years ending in the spring of 1941.

The production department maintains a sericulture and a spinning and weaving experimental district, and operates a spinning and weaving mill and a handicraft section. It has

introduced modern methods of sericulture in rural Szechwan and taught women spinning, weaving and making embroideries for foreign markets. In the three years between 1938 and 1940, 3,037 technicians and 362 staff workers have been trained. The trained women in turn teach others what they have learned.

The three main enterprises of the production department—improvement of sericulture, production of cloth, and promotion of hand-made embroidery—employ the cooperative system and are known as “New Life Cooperatives.” So far, 35 cooperatives have been organized. To give directions for improved working methods, the department has established 46 stations. The number of women working in the three enterprises is 6,932.

As a result, 316,370 kilograms of improved cocoons were produced in the sericulture experimental district at Loshan in western Szechwan in 1939, and 549,000 in 1940. Silk produced amounted to 42,000 kilograms in 1939, and 61,000 kilograms the following year. The number of improved mulberry trees grown increased from 500,000 in 1939 to 2,120,000 in 1940. In the district, 717 families were taught the improved methods of silk production in 1939, and 1,000 families in 1940.

The sericulture improvement work has been extended from Loshan to six other districts in Szechwan.

Under the handicraft section, altogether 2,155 silk and linen pieces, including night gowns, serviettes, handkerchiefs, table and bed covers, cushion and pillow cases, were produced in 1939. The number increased to 9,556 in 1940. The section has seven branch stations in and around Chungking.

The experimental station at Sungchi, west of Chungking, produces gauze, medical cotton, blankets, bed covers, cloth, towels, and other articles. In that district, over 1,500 cooperative members were engaged last year in producing cotton. The department also operates a factory manufacturing improved jennies and weaving machines. It maintains a nursery and a farm where imported chickens, pigs and rabbits are raised.

The department operates a spinning, weaving and dyeing mill to which soldiers' families are admitted. The factory turns out cloth, suits and uniforms.

The war relief department and the Women's War Relief Association are correlated, the secretary-general of the association being *ex-officio* head of the department. Established in August, 1937, the association has 58 branch associations and 54 branch offices in China and abroad. Since the war, a total

of CN\$50,000,000 in cash, surgical equipment and medical supplies has been raised.

The refugee children's department is correlated with the Refugee Children's Association. In more than ten provinces, fourteen branch associations have been established. The department cares for 54 homes. War orphans gathered together number 25,000.

The task of the rural service department is "to develop a true sense of patriotism among the people, to raise their cultural standard with the cooperation of the cultural department, and to improve their standard of living with the cooperation of the production department." Included in the activities are Chinese character-reading classes, the promotion of the New County System and the training of staff workers.

The department maintains thirteen rural service teams of 239 girls. Their activities have covered Hupeh, Hunan and 29 counties in Szechwan. Their energies are concentrated on Szechwan where they are now working in thirteen counties. Illiterate women who have been taught by them to read and write number 66,913; children, 23,394; and men, 12,246.

In her book *China Shall Rise Again*, Madame Chiang wrote: "Proof of the good effects of the work was shown on a recent tour of inspection. In one of the *hsien* we visited, some 20,000 people were gathered to hear my sisters and myself speak. Considering how much noise there is in every Chinese gathering, from a funeral to a wedding, the order and quietness were startling. The audience paid such close attention to what we were saying that one could have heard the drop of a pin. An air-raid alarm sounded during the meeting; but there was no panic. Our girls calmly told the people how they were to march to the hills and scatter themselves; and quietly they did so. It was amazing to see how a few youngsters could direct the dispersal of so huge a crowd with such efficiency and dispatch. A new thing in old China!"

The Council maintained a war area service department similar in nature to the rural service department except that it concerned itself with the work in war zones. The war area service department was abolished in March this year.

The work of all women's organizations in China is brought together under the Women's Advisory Council through the coordinating department. The department is in touch with 351 women's organizations all over the country. It has established ten provincial and municipal women's work committees



and organized ten women's committees abroad in addition to 33 New Life women's service corps in government institutions.

The cultural department supplies material to women's work corps and edits and publishes magazines and news sheets in which topics and events of interest to women are discussed and recorded.

#### 4. CHUNGKING BATTERED BUT UNBOWED

Chungking, wartime capital of China, 1,500 miles up the Yangtze River from Shanghai, is far different from Peiping or Nanking as far as capital cities are concerned. There are no imposing palaces and no semblance in its physical features will remind one of the grandeur of the ancient capital.

Built on a ridge of hills hemmed in by two swift-flowing rivers, Chungking is not in a position to follow the same form of city planning as that carried out on the wide Nanking plain. Many streets in Chungking cannot be widened beyond a certain limit, else the buildings on one or both sides would be pushed to the valley below, but the main roads have been widened to accommodate two or three lines of cars. Chungking has a few large, reinforced concrete buildings but there are no blue-tiled roofs and gracefully curved eaves which characterized the architecture both in Peiping and in Nanking.

For half a year Chungking is covered by clouds and sometimes is cloaked in mist or fog. This is the foundation for the old saying that Szechwan dogs bark at the sun. Seen from above, the tip of the Chungking peninsula seems to have been so packed with buildings that many may be crowded into the rivers any minute. On other parts of the peninsula, houses and terraced paddy fields mingle together on the rugged slopes and low-lying valleys, and all along the hills air-raid shelters have cut into the stone. Sedan-chairs are in wide use to carry passengers up and down steep stone paths. Junks ply the Chialing and Yangtse rivers.

#### AIR OF OPTIMISM

An unmistakable air of optimism and confidence lends distinction to Chungking as the wartime capital of China. Independent observers who have had a glimpse of the city,

however briefly, have been invariably impressed by scenes of energetic activity and buoyant aliveness.

Headquarters of China's gigantic forces of resistance and reconstruction, Chungking is alive to the moves at various war fronts and the needs in the rear. It is in this city of hills that developments in economic, industrial, communications and other fields are planned and directed, and new means and measures are studied and adopted for the improvement of the people's livelihood.

Experienced and trained men in all spheres of activity have given up their homes and work in occupied areas to come to the government fold despite rigors of travel and the hardships that necessarily accompany the self-imposed exile. Away from their families and deprived of ultra-modern comforts to which they were accustomed in coastal cities, these men work incessantly in the interest of nation-building. When problems cover too wide a field and are too important for a few persons to decide, conferences are called in Chungking. To them come experts and advisers from all directions to pool their knowledge for the common good of the nation.

Chungking has been the venue of many important conferences national in character. The national convention of budgets, accounts and statistics and conferences of food, agriculture and forestry and finance were among the important ones held in the past several months. Under the auspices of the Kuomintang Organization Board, women Party workers from Free China met to discuss their experiences and future plans.

From time to time martial pomp is provided the capital in the form of military reviews and parades. Chungking has no open field big enough for large reviews but sometimes units of crack troops are lined up for inspection by the Generalissimo.

#### JAPANESE AERIAL ATTACKS

Into this compact city, the nerve center of China, the Japanese have dumped thousands of tons of incendiary and demolition bombs. Block after block of houses have been wiped out not once but twice in the past two years, but the indomitable spirit of the Chinese people, which the Japanese have been seeking vainly to destroy in their numerous merciless raids, remains steadfast.

The first severe raid on Chungking took place on May 3 and 4, 1939, when the Japanese air force transformed the midtown

section of the inner city of Chungking into a mad inferno of flames. Seven huge conflagrations were counted at nightfall, roaring through the heart of the city in a swath a mile and a half wide and a half mile broad. By the time night fell the red glow of the flames illuminated the countryside for miles around.

Yet more disastrous bombings battered the city on August 19 and 20, 1940, when 250 Japanese planes showered missiles on the closely built-in quarters on two successive days. More than 30 fires broke out the first day. The few blocks left intact were finished the following day when some 20 blazes raged simultaneously in the business section.

On both occasions, the fires burnt from afternoon to late night. Billowed by a brisk southeasterly wind, the rolling flames eventually merged into a huge mass puffing skyward to darken the eastern horizon. When night fell, the entire downtown area was engulfed in flames. The full moon rising over the Yangtze was blood-red in the fire-lit sky.

The conflagrations razed four-fifths of Chungking's once busy downtown district. Streets, lanes, and shops and civilian quarters were turned into heaps of charred ruins, and in between them stood a forest of gaunt walls bearing testimony to the wanton raids.

Forces of reconstruction began to work immediately. Chungking city has been given a new facade. Most of the tall buildings, four or five stories high, were gone after the attacks. Out of the ruins have risen mostly one-story, but nevertheless bright and compact, shops and houses. Two months after the August disaster, 2,000 new business applications were filed with the Bureau of Social Affairs of the Chungking City Government.

A walk along Chungking's main thoroughfares will find every shop busy and the streets thronged with pedestrians and vehicles. Buses, as usual, are crowded to capacity. Restaurants, bazaars, department stores and shops, mostly built with bricks retrieved from the ruins, dot the busy centers.

Neon lights have been bombed out of existence. Chungking's business leaders consider it too expensive to have new ones installed, and what is more, these lights consume electricity which is needed by the increasing number of factories around the city. Modernistic decorations are, however, not neglected, giving an artistic touch to window displays. Empty places between shops are filled with stalls in which fruits and flowers are sold.

### "THE SHOW MUST GO ON"

Every one of the seven movie houses has gone through extensive repairs, not once but many times. Three of them have been rebuilt since the August bombings, while two are new additions to Chungking's amusement world. Although all Hollywood productions shown in Chungking are several years old, most of the managements have gone out of their way to have new sound projectors installed to please their tolerant customers.

Among the popular American pictures presented recently were Deanna Durbin's "Three Smart Girls," "Three Smart Girls Grow Up," those co-starring Fred Astaire and Ginger Rogers, "Wuthering Heights," "Babes in Arms," "Men with Wings," "Wings of the Morning," and the ones starring Shirley Temple, Tyrone Power, Louise Rainer, Joan Crawford, Edward G. Robinson, Carole Lombard, Frederick March, Claudette Colbert and William Powell.

The American importations and a smaller number of Soviet pictures give variety to Chungking's array of Chinese films which revolve around the theme of war and reconstruction. Two big Chinese movie studios in Chungking have been producing pictures with the war as their common theme.

Players of the two movie studios, China Film Corporation and the Central Movie Studio, and a number of amateur dramatic clubs contribute a substantial share of entertainment to Chungking's show world. Like the Chinese pictures, the dramas have patriotism as their central thought. However, the subtle manner with which the dramas have been presented and the excellent histrionic ability on the part of the players have kept the Chungking public well amused.

For those who enjoy Peiping opera, the Experimental Theater in Chungking gives nightly performances. A number of amateurs have also delighted large audiences with their singing and acting.

### CLASSICAL MUSIC VS. WAR SONGS

A music-lover once remarked that music in Chungking alone is sufficient to keep the city lively. The truth is that whereas before the war there were only two orchestras in China: one formed by the Officers Moral Endeavor Association in Nanking, and the other maintained by the Shanghai Municipal Council, there are in the wartime capital three all-Chinese orchestras each comprising as large a number of players as the

S.M.C.'s orchestra of 45 musicians. To keep the three orchestras going, the Chinese Government is paying \$20,000 a month.

Tchaikovsky's Symphony Pathetique was recently played by the China Philharmonic Orchestra before an enthusiastic audience in the city's largest theater. Perhaps nothing could have better demonstrated the Chinese spirit, because the concert took place in May after the Japanese had started the "bombing season" of the year. It was conducted by French-trained Sitson Ma, young but talented violinist.

The three orchestras are: the China Philharmonic Orchestra, the Experimental Symphonic Orchestra of the National Conservatory of Music and the Operatic Orchestra of the National Experimental Theater. The Experimental Symphonic Orchestra is led by Wu Pa-chao who studied music in Belgium. Cheng Tso-chao, another French-returned musician, heads the Operatic Orchestra.

Musicians have been doing their best to portray with their own compositions the undaunted and militant spirit which permeates the wartime capital. "Not Death, But Immortality" was one of the pieces composed by Mr. Ma, which has never failed to provoke rounds of applause and requests for "encore" every time it is played.

More popular still are the war songs with which the Chungking public has been entertained and at the same time reminded of the struggle against aggression. The songs have been so popular in the city that old and young sing alike. No festivity or social function seems to be complete without the singing of war songs. The stirring nature of the songs has struck both the Chinese and foreign audiences. Dr. Lauchlin Currie, President Roosevelt's personal envoy, was deeply impressed by the songs sung for his benefit.

One of the celebrated events as far as mass singing is concerned took place on the second anniversary of the Spiritual Mobilization Movement in March, when a chorus of 1,000 boys and girls sang war songs, accompanied by ten brass bands. The singers came from the musical class of the Central Training Institute, the National Conservatory of Music, the Experimental Theater, the Amateur Songsters' Club and all the universities and middle schools in Chungking.

#### FESTIVALS AND EXHIBITIONS

Festivals and anniversaries of memorable occasions are perhaps more widely celebrated in the wartime capital than

anywhere else in China. Music, sports and parades usually feature the program.

The New Year was ushered in with cymbals, gongs and drums sounding throughout the night in every corner of the city and with an abundance of firecrackers set off along the streets. Bamboo arches covered with evergreen and decorated with lanterns were erected at important street crossings, where dragon dances were staged. For three days and three nights, the celebrations were continued by more than half a million people. Lantern parades were also held.

Over 100,000 persons took part in the celebrations of the seventh anniversary of the New Life Movement in February. The festivities continued for seven days. The second anniversary of the Spiritual Mobilization Movement was observed with a mile-long parade, in which soldiers also took part. In addition to the attractive musical program, 500 athletes participated in group exercises and held basketball, football and tennis tournaments and other games.

Scores of public bodies, Sino-foreign cultural associations, the Rotary Club, the Y's Men's Club and other organizations keep Chungking's social season open. Guests from abroad are always received with open arms, while tea and dinner parties are given on the slightest pretext of promoting goodwill and friendship.

Under the auspices of educational institutions and cultural associations, exhibitions of all kinds have been held. The People's Educational Institute was a few months ago the scene of an antiques exhibition, in which 1,000 examples of Chinese calligraphy, bronze and stone articles, earthenware and Chinese coins were on display.

Among other exhibitions held lately were: an extensive collection of newspapers and magazines published in China and abroad; photographs showing life in Sikang, the new province between Szechwan and Tibet; Chinese drawings and paintings; Chinese calligraphy; photographs depicting the life of Chinese soldiers at the front; a food exhibition aimed at teaching the public the nutritious value of different kinds of food; and an engineering exhibition.

Important events both at home and abroad are reported by eleven Chinese newspapers and the *Hankow Herald*, the only foreign-language journal which has migrated from the Yangtze port to Chungking. Chinese magazines of all kinds fill the stalls of Chungking's book stores.

## AIR-RAID PRECAUTIONS

The Air-Raid Relief Commission, jointly established by eleven government organizations, looks after the welfare of the Chungking public in air-raids. Public and private dugouts completed by the end of March amounted to 1,000, enough to accommodate 400,000 persons. For the proper apportionment of the dugout space to the public, the Police Bureau of the Chungking Municipal Government issued new domicile permits on which were given directions as to which dugout each holder should go during emergency. No such permits were given to those whose presence in Chungking was regarded as unnecessary.

The population of Chungking once reached 700,000, but the number was reduced as a result of wholesale evacuation following heavy bombings. During the winter season, a number of people returned to the city so that the number came to 500,000 in the spring. Before the "bombing season" set in, the authorities once again enforced the "thinning-out" program, and by the end of May only 400,000 persons were estimated to be living in the city.

When enemy raiders are flying in the direction of Chungking, the public is warned by a red ball, which becomes an illuminated lantern at night, hoisted on the top of a post. When a second ball goes up, the raiders are one stage nearer the capital. Simultaneously, the air-raid siren goes off. If the siren goes off for the second time, the planes are within striking distance of the city. Thirty-two air-raid warning posts have been erected on hill-tops. The arrival of an enemy scouting plane is indicated by a triangle.

To prevent a possible water shortage which may result from damage to water mains, seventeen water reservoirs have been constructed. The fire-fighting force has been increased to 10,000 including a number of volunteers.

In 1939, eleven persons were killed or wounded for every two bombs dropped on Chungking. The casualties were reduced to two persons to every two bombs in 1940. The figure was further reduced to one person killed or wounded in every three and a half bombs dropped in 1941 between the months of January and May.

The dugouts are not only adequate to take in all of Chungking's population, but there is also room for motor cars and trucks. Several of Chungking's newspapers are printed in dugouts.



Chungking's health authorities take care of the first-aid work, while subsidies and loans are given to the inflicted by Chungking's relief organizations. Total casualties handled by the National Relief Commission from April, 1938 to December, 1940, numbered 7,763: 4,739 for 1938-39 and 3,024 for 1940. The part played by the National Relief Commission in air-raid relief may be summarized in the following figures: 4,913 persons were given treatment and discharged from hospitals, 1,469 bodies buried, 6,341 refugees given shelter, 7,347 evacuees transported to the countryside. The commission appropriated \$714,680 for emergency relief, \$297,150 for evacuation, \$129,800 for credit loans and \$77,855 to families of the dead.

### A NEW CITY ON RUINS

Constant air-raids have scarcely deterred the Chungking Municipal Government's city-building efforts. The work undertaken by the authorities may be visualized from the \$16,800,000 budget for 1941, which almost doubles the \$8,618,580 for 1940 and is four times the budget for 1939. Among the main expenditures are: \$5,011,044 for public safety (police and fire force), \$3,207,064 for reconstruction projects including roads, \$1,913,504 for public health and clinics, \$1,254,599 for educational and cultural purposes, and \$1,500,000 for investment in public utilities. Other outlays are: \$1,775,762 for financial administration, \$659,224 for the city government, and \$467,924 for its bureau of social affairs.

The baptism of fire, which Chungking underwent in the past two summers, helped in the construction of new roads. As a result of the extensive destruction, streets were widened, the ground was leveled and old houses were razed to make way for new roads. One of the new roads covers a distance of 1,900 meters. Another road, which runs through the busiest section of the city, was completed on April 6. The construction would not have been possible had not the old houses and obstacles been bombed out of existence. Roads were built linking one section of the city with another. Besides the network within the city limits, several new roads have been completed on the outskirts. One of these is 9,700 meters long.

For the storage of a sufficient quantity of rice to remedy a possible shortage, the municipal authorities have completed two of a series of ten new granaries, while old ones are being repaired. The authorities hope to store up 600,000 piculs of grain.

Through the help of the American Red Cross, the authorities built at Wanglungmen, one of Chungking's river crossings, ten one-story brick and wood houses, each measuring 7 by 16½ meters. The houses stand on the terraced slope which arises from the Yangtze river bank. By the side of the houses, a new stone staircase, ten meters wide, and covering a distance of 100 meters, was built. The landing of the staircase serves as a wharf. Also constructed in the vicinity were a public dining hall and a station for sedan-chairs.

The Wanglungmen colony, partly financed by the U.S. \$10,000 donated by the American Red Cross, is one of a group of similar building projects being carried out by the authorities as a means of relief to the people of meager income who have suffered from bombings.

When many eating-houses were destroyed in air-raids, the Bureau of Social Affairs of the Chungking Municipal Government opened fourteen public dining halls serving food at prices much lower than those charged in ordinary restaurants. The bureau also purchased cooking utensils, bowls, chopsticks and spoons to give to those made homeless by raids. For such supplies, the Bureau last year spent \$23,000 in aiding 12,000 persons.

To check unreasonable increases in commodity prices, the authorities have also established a chain of public stores supplying daily necessities to the public at prices lower than those quoted on the market. The first eight public stores sold between July and December last year \$2,600,000 worth of rice, salt, oil, cloth, shirts, underwear, soap, cotton, wool, sugar and other goods. The number of customers served was estimated at 695,000. The stores are to be increased to 20 by the end of the year.

In the field of education, the authorities hope to give schooling to 247,000 children and adults this year through the increase of public schools to 186 in accordance with the local government reform program, or the new country system. The anti-illiteracy campaign launched in Chungking two years ago has so far enabled 55,000 men and women to read newspapers and write simple letters. With ages ranging from 16 to 35, the 55,000 former illiterates had their schooling in 1,250 classes held in thirteen districts of the city.

Another proof of Chungking's potentiality and vitality is given by the amount of income tax paid. Of the \$80,000,000 income and profit taxes collected by the Direct Taxation

Administration last year, one quarter, or \$20,000,000 came from Chungking. Compared with the 1939 figure of \$8,000,000, last year's receipts in the wartime capital registered a 150 per cent increase, testifying to the rapid growth of the city. Despite the incessant bombings and destruction, 17,000 commercial establishments, including hundreds of new ones, are doing business in Chungking.





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